

Rural District of Auckland.

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Annual Report  
OF THE  
Medical Officer of Health

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FOR THE YEAR 1913.

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BISHOP AUCKLAND:  
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SANITARY DEPARTMENT,  
CRADOCK STREET,  
BISHOP AUCKLAND,  
29th, APRIL, 1913

TO THE CHAIRMAN AND MEMBERS OF THE  
AUCKLAND RURAL DISTRICT COUNCIL.

SIR AND GENTLEMEN,

I have the honour to present for your consideration my third Annual Report on the Health and Sanitary circumstances of your District during the year 1913.

For the sympathetic consideration and assistance received during the year, I beg to thank the Council.

To the two Inspectors, Messrs. Liddle and Dowson, I am much indebted for assistance in the preparation of this Report.

I beg to remain,

Gentlemen,

Your obedient Servant,

**JOHN F. MACDONALD.**



## SUMMARY, 1913.

### AUCKLAND RURAL DISTRICT.

Situation	...	...	...	Latitude, 54° 38' N. ; Longitude, 1° 46' W.
Elevation	...	...	...	Minimum, 171 ; Maximum, 1,133 feet above Ordnance Datum
Configuration	...	...	...	Undulating
Area	...	...	...	57,334 Acres (including land and inland water)
Population	...	...	...	Census 1901—51,505 ; 1911—58,338
Estimated Population	...	...	...	Middle of 1913—59,997
Inhabited Houses	...	...	...	1901—10,245 ; 1911—11,977
Density of Population	...	...	...	4·86 per Inhabited House ; 1·05 per Acre (Census)
Rateable Value on 1st April, 1913	...	...	...	Agricultural Land, £32,934 ; Buildings, £257,173
Birth Rate	...	...	...	30·18 per 1,000 of the population
Death Rate	...	...	...	15·48 ditto ditto
Zymotic Death Rate	...	...	...	1·91 ditto ditto
Phthisis Death Rate	...	...	...	0·76 ditto ditto
Tubercular Diseases Death Rate (Exclusive of Phthisis)	...	...	...	0·48 ditto ditto
Respiratory Diseases Death Rate	...	...	...	3·08 ditto ditto
Enteric Fever Attack Rate	...	...	...	0·51 ditto ditto
Diphtheria Attack Rate	...	...	...	1·31 ditto ditto
Scarlet Fever Attack Rate	...	...	...	6·4 ditto ditto
Puerperal Fever Attack Rate	...	...	...	0·02 ditto ditto
Erysipelas Attack Rate	...	...	...	0·83 ditto ditto
Deaths under One Year	...	...	...	254
Infant Mortality	...	...	...	140 per 1,000 births
Number of Houses Inspected during the Year	...	...	...	692
Number Found Unfit for Human Habitation	...	...	...	101
Number of Persons per House, 1901 Census	...	...	...	5·03
Number of Persons per House, 1911 Census	...	...	...	4·86

## Legislation of Public Health interest during 1913.

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### BOARD OF AGRICULTURE AND FISHERIES

Tuberculosis Order of 1913.

### LOCAL GOVERNMENT BOARD :

The Public Health Tuberculosis Regulations, 1912.

Circulars *re* :—Schemes for Institutional Treatment of Tuberculosis,  
Epidemic Diarrhœa.

Feeding of Infants ; Notification of Births Act, 1907.

Provision of Institutions for the Treatment of Tuberculosis.

Receptacles for Poisonous Liquids intended to be used  
for Purposes of Disinfection.

Treatment of Tuberculosis.

Regulations under the Public Health (Regulations as to  
Food) Act, 1907.

Memorandum on Construction and Arrangement of Inexpensive Buildings  
for Tuberculosis Patients.

### STATUTES :

Mental Deficiency Act, 1913.

National Insurance Act, 1913.

Public Health (Prevention and Treatment of Diseases) Act, 1913.



## RURAL DISTRICT OF AUCKLAND.

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### Report of the Medical Officer of Health for the year 1913.

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#### ***A.—Natural and Social Conditions of District.***

The district, situated in the South-West portion of the County of Durham, is roughly triangular in shape with the apex of the triangle towards the West and the base towards the East; the longer axis being from East to West. It is bounded on the North by Crook, Willington, and Spennymoor Urban Districts; on the East by Sedgefield Rural District, on the South by Barnard Castle and Darlington Rural Districts and Shildon Urban District, on the West by Barnard Castle Rural District, and on the North-West by Weardale Rural District.

The district, one of the most populous Rural Sanitary districts in the County, has an area of 57,334 acres (including Land and Inland water). The surface of the district is undulating, the altitude varying from 171 feet to 1133 feet above Ordnance Datum.

Almost the whole of the district is underlaid by the coal measures,

Rateable value on 1st April, 1913	£257,173
	(including lands, £32,934)
„ „ on 1st October, 1913	£258,332
Assessable „ on 1st April, 1913	£240,688
„ „ on 1st October, 1913	£241,865

Outstanding loans on 30th September, 1913, £22,584 0s. 4d.

### ***Population.***

The population enumerated in the district at the census of 1901 was 51,505, at the census of 1911, 58,338, and the estimated population for 1913, based on the intercensal increase, was 59,997.

In the 1912 report was given two tables showing respectively the population for each Civil Parish, and a detailed classification of the number of buildings in the district at the census of 1911.

The following table gives the age and sex incidence of the population of the district as enumerated at the last census. With the following exceptions:—under 5, 5—15, 85 years and upwards, the district has an excess male population for all the quinquennial periods, whereas England and Wales has an excess female population, except for the three quinquennial periods, under 5, 5—10, and 10—15:—

TABLE SHOWING AGE AND SEX INCIDENCE OF THE POPULATION  
ENUMERATED AT THE CENSUS 1911 :

Ages	Males	Females	Totals
Under 1	876	813	1,689
1	795	776	1,571
2	820	876	1,696
3	766	855	1,621
4	750	761	1,511
5	705	680	1,385
6	702	720	1,422
7	784	756	1,540
8	707	675	1,382
9	722	724	1,446
10	645	699	1,344
11	612	676	1 288
12	617	643	1,260
13	683	635	1,318
14	589	599	1,188
15	581	562	1,143
16	662	554	1,216
17	612	549	1,161
18	621	542	1,163
19	608	522	1,130
20	578	519	1,097
Under 5	4,007	4,081	8,088
5 to 10	3,620	3,555	7,175
10 to 15	3,146	3,252	6,398
15 to 20	3,084	2,729	5,813
20 to 25	2,659	2,514	5,173
25 to 30	2,446	2,274	4,720
30 to 35	2,066	1,977	4,043
35 to 40	1 954	1,877	3,831
40 to 45	1,636	1,504	3,140
45 to 50	1,378	1,249	2,627
50 to 55	1,173	983	2,156
55 to 60	953	824	1,777
60 to 65	679	571	1,250
65 to 70	512	467	979
70 to 75	341	345	686
75 to 80	162	145	307
80 to 85	76	57	133
85 to 90	11	25	36
90 to 95	1	4	5
95 to 100	1	...	1
100 & up.	...	...	...
	<hr/> 29,905	<hr/> 28,433	<hr/> 58,338

Condition as to marriage of persons enumerated at the census 1911 in the Auckland Rural District is given in the following table:—

UNMARRIED				MARRIED				WIDOWED			
Persons	Males	Females	Females 15-45 years	Persons	Males	Females	Females 15-45 years	Persons	Males	Females	Females 15-45 years
3 4877	18438	16439	5301	21016	10454	10562	7366	2445	1013	1432	208

**OCCUPATION.**—Unfortunately the census returns do not give separate figures for the Auckland Rural District, but the figures published by the Home Office in 1911 showed that at that time there were 13,213 persons employed associated with the coal mines, 10,196 underground and 3,017 above ground, but no doubt a number of these, although working in the Auckland Rural District, resided in the neighbouring Urban Districts.

Coal mining and its associated industries form the chief occupation of the inhabitants.

**SIZE OF FAMILY.**—For census purposes persons entitled to receive a schedule were regarded as heads of families, these being: “(a) Every head of a family occupying the whole or part of a house or flat. (b) Every separate lodger occupying a room or rooms in a house or flat (where two or more lodgers shared a room or rooms they were treated for census purposes as a single family. (c) Every resident caretaker of a house to be let, of a shop or of other business premises, or of a public building. (d) Every outdoor servant (with or without family) occupying separately any buildings or rooms in a building, such as a lodge, gardener’s cottage, dwelling rooms over a coach-house or stable, etc., which is detached from the house to which it belongs, or has no internal communication there-

with. (e) Every resident proprietor, manager, or head of an hotel, club, business establishment, school, etc. (f) The chief resident officer of every institution. (g) The master or person in charge of every barge, boat, or other vessel.

“The families under headings (a) to (d) have been treated as “private families,” those under heading (e) as “private” only when the domestic members of the occupier’s family exceed the non-domestic (*i.e.*, trade servants, visitors, scholars, etc.), and those under headings (f) and (g) have been treated as “non-private families.”

“A dwelling” or “tenement” is “a place in which any person entitled to receive a schedule usually lives.”

Based on the above two definitions, the following table gives in detail the number of private families of various sizes in tenements of various sizes:—

AUCKLAND RURAL DISTRICT:	No. of Rooms per Tenement	No. of Persons in Private Families:													Total Number of Private Families	Population in Private Families		
		No. of Private Families:																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 and up- wards		
Total Population : 1901, 51,505; 1911, 58,338		1	20	9	15	8	2	...	1	...	...	...	...	...	...	55	132	
Total Families or Separate Occupiers, Private or Other:	1	131	530	729	642	400	224	138	71	34	7	...	...	...	...	2,909	11,235	
1901, 10,324; 1911, 12,015	2	56	306	481	529	441	320	226	156	77	34	9	6	4	...	2,645	12,438	
Tenements with more than Two Occupants per Room:	3	67	384	590	786	677	590	463	332	222	125	77	25	8	3	4,349	23,112	
Number, 1913	4	5	67	134	186	190	161	101	76	56	44	20	10	1	1	1,055	5,874	
Population per cent. to Population in Private Families, 24.9	5	3	30	66	83	64	71	37	23	20	13	8	1	1	2	422	2,235	
	6	1	16	31	50	34	25	24	10	8	11	1	3	1	...	215	1,136	
	7	1	12	16	28	29	26	20	21	5	5	3	2	...	...	168	946	
	8	1	2	10	8	9	17	9	9	7	...	3	...	...	...	75	445	
	9	1	6	14	7	10	15	16	11	3	2	1	2	4	1	95	606	
	10 and up- wards	1	6	14	7	10	15	16	11	3	2	1	2	4	1	2	95	606
Totals	...	286	1362	2086	2327	1856	1449	1035	709	432	241	124	49	20	5	7	11,988	58,159

The table to be read as follows:—Of a total of 12,015 (see column 1) families or separate occupiers enumerated in the district 11,988 were private families, and of these 55 were enumerated in tenements of one room, 2909 in tenements of two rooms, 2645 in tenements of three rooms, and so on. The 55 families enumerated in tenements of one room included 20 consisting of one person each, 9 of two persons each, 15 of three persons each, and so on, and contained an aggregate population of 132. The 2,909 families enumerated in tenements of two rooms included 131 consisting of one person each, 530 of two persons each, and so on; and of the 286 families of one person, 20 occupied tenements of one room, 131 of two rooms, and so on.



The average number of persons per family enumerated in 1901 and 1911 were as follows:—

1901	1911	
All Dwellings	All Dwellings	Ordinary Dwelling-houses
4.99	4.86	4.84

The family of four persons contains the highest proportion of the population (16 per cent), next in order being the families of five persons (15.9 per cent), six persons (14.9 per cent), the figures being in almost similar proportion and order as those for the whole of England and Wales.

The proportion per 1000 families, of families of various sizes, for England and Wales, County of Durham (Administrative, Total Urban and Rural Districts), and Rural District of Auckland, is given in the following table:—

This table shows 19.4 per cent of the total families in the district to consist of four persons per family, that of the administrative county being 17.8 per cent., and that of England and Wales 18.1 per cent. The administrative County of Durham and the Auckland Rural District have a smaller proportion of families consisting of one, two, and three persons per family than England and Wales.



PROPORTION PER 1000 FAMILIES OF FAMILIES CONSISTING OF :

	1	2	3	4	5	6	7	8	9	10	11	12 Persons & over
	Person	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons
England and Wales ...	53	162	194	181	144	104	69	43	25	13	7	5
County of Durham { Administrative ...	26	119	175	178	155	121	88	60	38	21	11	8
County of Durham { Total Urban ...	27	122	178	180	156	120	86	58	36	20	10	7
County of Durham { Total Rural ...	24	114	172	179	153	122	90	62	40	23	12	9
Auckland Rural District ...	24	113	174	194	154	120	86	59	36	20	10	6

SIZE OF TENEMENTS.—For census purposes room was defined thus—"Count the kitchen as a room, but do not count scullery, landing, lobby, closet, bathroom, nor warehouse, office, shop."

Based on the above definition, the table on page 20 gives the population in private families of various sizes in tenements of various sizes.

The proportion of tenements of various sizes per 1000 tenements in the district is compared with that of other areas in the following table:—

PROPORTION PER 1,000 TENEMENTS CONSISTING OF :									
	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms 10 Rooms or more
England and Wales...	32	83	139	250	207	137	59	35	20
County of Administrative	21	216	269	281	102	47	27	15	9
Durham {	28	219	254	271	110	53	29	15	9
County of Total of Urban Districts ...	12	212	289	295	91	38	24	16	9
Total of Rural Districts ...	4	242	220	362	88	35	18	14	6
Auckland Rural District.									7

The commonest size of tenement in the Auckland Rural District is that consisting of four rooms, which forms 36 per cent. of the whole, 22 per cent. consists of three rooms, 24.2

per cent. of two rooms, 4 per cent. of one room, and 8.8 per cent. of five rooms.

46.6 per cent. of the total tenements in the district have less than four rooms. Of the whole Administrative Counties in England and Wales, Northumberland (with 55.9 per cent.) has the highest proportion of tenements with less than four rooms, the County of Durham being third with 50.6 per cent. Taking the whole of England and Wales, 25.4 per cent. of the total tenements have less than four rooms.

The proportion of the population enumerated in the district in tenements of various sizes is compared in the table on page 21 with those of England and Wales and areas in the County.



PROPORTION PER 1,000 PERSONS ENUMERATED IN TENEMENTS CONSISTING OF :										
	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms	10 Rooms and more
England and Wales...	14	61	128	247	224	148	64	40	23	51
County of Durham.	11	184	269	307	110	48	28	17	10	16
Administrative County ...	15	195	254	292	119	55	30	16	10	14
Total of Urban Districts ...	6	170	288	329	98	38	26	17	10	18
Total of Rural Districts ...	2	193	214	397	101	39	20	16	8	10
Auckland Rural District ...										

In the Auckland Rural District 80 per cent. of the population live in houses of four rooms and less, in the administrative county of Durham 77 per cent., in England and Wales 45 per cent. In the district 40.9 per cent. of the population

live in houses of three rooms and less, in the administrative county of Durham 46.4 per cent., and in England and Wales 20.3 per cent.

The extent of sub-letting prevailing in the district is very limited, as the difference between the number of separate occupiers and inhabited dwellings enumerated at the last census is comparatively small.

The following table gives persons enumerated in barns, sheds, caravans, tents, etc., in the district, classified according to sex and township:—

			Males.	Females.	Totals.
Byers Green	...	...	3	—	3
Coundon	...	...	2	—	2
Coundon Grange	...	...	4	—	4
Evenwood and Barony...	...	...	3	2	5
Hamsterley	...	...	1	—	1
Helmington Row	...	...	1	—	1
Lynsack and Softley	...	...	25	—	25
Middlestone	...	...	1	—	1
North Bedburn	...	...	5	—	5
			—	—	—
Totals	...	...	45	2	47
			—	—	—

OVERCROWDING. — Persons living in tenements having more than two occupants per room is spoken of as “overcrowded.” The size of the room is not taken into consideration.

The average number of occupants per room in tenements of various sizes in the district is compared with that of England and Wales and areas in the County in the following table:—



AVERAGE NUMBER OF OCCUPANTS PER ROOM IN TENEMENTS CONSISTING OF :										
	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms	1 to 9 Rooms
England and Wales...	1.90	1.59	1.33	1.08	0.95	0.78	0.68	0.61	0.56	0.45
Administrative County of Durham	2.54	2.08	1.62	1.34	1.05	0.83	0.73	0.65	0.59	1.34
Urban Districts	2.55	2.14	1.61	1.30	1.04	0.82	0.72	0.63	0.56	1.32
Rural Districts	2.50	1.99	1.64	1.38	1.07	0.83	0.74	0.68	0.63	1.37
Auckland District	2.20	1.93	1.56	1.32	1.11	0.88	0.75	0.70	0.65	0.63

In houses consisting of one, two, three, and four rooms the average number of persons per room is slightly higher for the district than for the administrative county of Durham;

the average number per room in houses with more than four rooms is lower in the district than in the administrative county.

The average number of persons per room for houses of all sizes is lower for England and Wales than for the Auckland Rural District or the administrative county of Durham.

Detailed information as to the population living under various conditions of room accommodation in the district is given in the table on page 26.

There were 1913 tenements with 14,467 of a population having more than two occupants per room.

Of these tenements 26 consisted of 1 room.

877	„	„	2 rooms
512	„	„	3 rooms
460	„	„	4 rooms
35	„	„	5 rooms
3	„	„	6 rooms
<hr/>			
Total	1913		
<hr/>			

Of the total population occupying one room, 71 per cent. were living in tenements having more than 2 occupants per room.

Of the total population occupying 2 rooms, 47 per cent.

„	„	„	3	„	32	„
„	„	„	4	„	19	„
„	„	„	5	„	7	„
„	„	„	6	„	2	„

24.9 per cent. of the total population lived in tenements having more than two occupants per room, and of those living in tenements with four rooms and less, 30 per cent.

Of the Administrative Counties, Northumberland (with 28.7 per cent.) has the highest proportion of the population living with more than 2 occupants per room, Durham coming second with 28.5 per cent.

The following table compares the Auckland Rural District with England and Wales and other districts in the County:—

PROPORTION PER 1,000 PERSONS ENUMERATED IN TENEMENTS HAVING THE FOLLOWING NUMBER OF OCCUPANTS PER ROOM.									
Up to and in- cluding $\frac{1}{2}$	Over $\frac{1}{2}$ but less than one,	One person per room.	Over 1 but not over $1\frac{1}{2}$ ,	Over $1\frac{1}{2}$ but not over 2	Over 2 but not over $2\frac{1}{2}$	Over $2\frac{1}{2}$ but not over 3	Over 3 but not over 4	4 and over.	Proportion per 1,000 persons in tenements of 10 rooms or more,
97	220	150	232	159	48	28	8	7	51
37	104	114	211	233	122	93	39	31	16
40	110	116	212	225	114	91	40	38	14
33	96	111	209	245	131	97	37	23	18
33	99	128	242	249	125	78	25	21	10
England and Wales ...									
County of Durham.									
Administrative ...									
Total Urban Districts ...									
Total Rural Districts ...									
Auckland Rural District ...									

This shows England and Wales to be much more favourably situated than the district as regards overcrowding. In the district there are 24.9 per cent. of the population living with more than two persons per room, in the administrative county of Durham 28.5 per cent., and in England and Wales only 9.1 per cent.

# POPULATION LIVING UNDER VARIOUS CONDITIONS OF ROOM ACCOMMODATION:

Average Number of Occupants per Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms	10 Rooms	Total	Percentage of Total Population in District
Up to and including $\frac{1}{2}$	...	131	56	835	139	261	126	185	67	133	1,933	3.3
Over $\frac{1}{2}$ but not over 1	...	...	612	1,770	1,146	652	520	441	281	317	5,740	9.9
1 Person per Room	20	1,060	1,443	3,144	950	426	168	168	63	20	7,462	12.8
Over 1 but not over $1\frac{1}{2}$	...	2,187	2,116	6,925	1,673	623	262	152	53	136	14,107	24.2
Over $1\frac{1}{2}$ but not over 2	18	2,568	4,125	5,897	1,552	230	60	...	...	...	14,450	24.9
Over 2 but not over $2\frac{1}{2}$	...	2,000	1,582	3,248	340	43	...	...	...	...	7,213	12.5
Over $2\frac{1}{2}$ but not over 3	45	1,344	1,941	1,147	74	...	...	...	...	...	4,551	7.8
Over 3 but not over $3\frac{1}{2}$	...	966	340	146	...	...	...	...	...	...	1,452	2.5
Over $3\frac{1}{2}$ but not over 4	32	568	171	...	...	...	...	...	...	...	771	1.3
Over 4 but under $4\frac{1}{2}$	...	306	52	...	...	...	...	...	...	...	358	.6
Over $4\frac{1}{2}$	17	105	...	...	...	...	...	...	...	...	122	.2
Totals	132	11,235	12,438	23,112	5,874	2,235	1,136	946	445	606	58,159	100
Percentage of Overcrowding ( <i>ie.</i> , with more than 2 Persons per Room)	71	47	32	19	7	2	...	...	...	...	24.9	24.9
	30 per cent.											

**POOR-LAW RELIEF.**—The coal strike of 1912 resulted in an increased grant of outdoor relief.

The table on page 28 gives the figures for each of the two financial years ending the 30th September, 1913, and the rate levied per £1 for the year ending 31st March, 1913. The table shows a decided fall in the amount for 1913 compared with that of 1912. This is most marked for the township of Escomb, with an outdoor relief grant for 1912 equivalent to 9/9½ per person living in the township, as against 6/3 for 1913, still an exceptionally high figure. The conditions in this township are influenced by the circumstances of Witton Park, and as a part of it is also situated in the civil parish of Witton-le-Wear, the outdoor relief in the latter parish is influenced to the extent of being equivalent to 5/4¼ per head of the population as against 1/9½ for the whole district. When it is considered that people living in these two townships were granted in outdoor relief alone for the three years ending 30th September, 1913, £6,583 1s. 10d, it is unnecessary to add that the conditions of Witton Park (I daresay most of the relief went to persons in residence there) as it exists at present is responsible for a substantial proportion of the poor rate levied. The village with low rented houses (some unfit for human habitation, many barely so) attracts persons most in need of outdoor relief, and looked at from a purely financial aspect the question is whether it would ultimately prove more economical to remove the conditions that attract these undesirable tenants, or continue to pay this excessive sum yearly in outdoor relief.

Civil Parishes.	Population Census	Amount for Year ending						Amount per head for Year				Rate (exclusive of Water Rate) levied per £1 for the year ending 31st March, 1913	
		30th Sept., 1912			30th Sept., 1913			1912		1913			
		£	s	d	£	s	d	s	d	s	d		
Auckland, St. Andrew's	5,602	580	3	0	561	14	3	2	0 $\frac{3}{4}$	2	0	6	10
Auckland, St. Helen's	1,622	144	16	9	78	12	6	1	9 $\frac{1}{2}$		11 $\frac{1}{2}$	6	4
Binchester	50	...			...			...				6	5
Bolam	124	23	12	0	18	9	0	3	9 $\frac{3}{4}$	3	1 $\frac{1}{2}$	4	6
Ryers Green	2,487	182	19	0	150	6	0	1	5 $\frac{1}{2}$	1	2 $\frac{1}{2}$	6	11 $\frac{1}{2}$
Coundon	6,912	281	3	0	227	3	11		9 $\frac{3}{4}$		7 $\frac{3}{4}$	4	6
Coundon Grange	3,627	279	18	0	299	3	0	1	6 $\frac{1}{2}$	1	7 $\frac{1}{2}$	6	10 $\frac{1}{2}$
Eldon	1,657	18	1	0	28	19	0		2 $\frac{3}{4}$		4 $\frac{1}{2}$	5	2
Escomb	2,783	1,362	1	0	867	9	4	9	9 $\frac{1}{2}$	6	3	9	1
Evenwood and Barony...	4,987	434	10	6	278	14	6	1	9	1	1 $\frac{3}{4}$	5	8
Hamsterley	425	39	4	0	24	3	6	1	10	1	1 $\frac{1}{2}$	5	4
Helmington Row	4,841	499	2	2	523	19	6	2	0 $\frac{3}{4}$	2	2	5	9
Hunwick & Helmington	2,464	305	9	5	256	18	5	2	5 $\frac{3}{4}$	2	1	9	1 $\frac{3}{4}$
Lynesack and Softley	2,706	190	15	6	143	1	6	1	4 $\frac{1}{2}$	1	0 $\frac{1}{2}$	6	6
Merrington	882	71	5	0	49	13	0	1	7 $\frac{1}{4}$	1	1 $\frac{1}{2}$	4	1
Middlestone	1,984	81	8	6	49	8	0		9 $\frac{3}{4}$		6	6	0
Middridge	452	50	17	6	45	13	0	2	3	2	0	6	0
Middridge Grange	79	...			...			...		...		4	8
Newfield	1,202	30	2	0	28	13	6		6		5 $\frac{3}{4}$	5	2
Newton Cap	1,192	27	6	6	31	5	0		5 $\frac{1}{2}$		6 $\frac{1}{4}$	5	7
North Bedburn	2,542	285	12	0	280	14	0	2	3	2	2 $\frac{1}{2}$	6	7
Old Park	835	2	13	0	0	6	0		0 $\frac{3}{4}$	...		5	4
Pollard's Lands	1,123	121	16	6	141	12	10	2	2	2	6 $\frac{1}{2}$	5	11
South Bedburn	226	...			...			...		...		4	8
West Auckland	4,471	646	12	0	434	12	4	2	10 $\frac{3}{4}$	2	1 $\frac{1}{2}$	6	6
Westerton	521	31	6	9	4	7	6	1	2 $\frac{1}{2}$		2	5	0
Whitworth Without	77	...			...			...		...		4	7 $\frac{1}{2}$
Windlestone	188	12	0	0	10	14	0	1	3 $\frac{1}{4}$	1	1 $\frac{3}{4}$	4	8
Witton-le-Wear	2,271	658	8	6	607	2	9	5	9 $\frac{1}{2}$	5	4 $\frac{1}{4}$	6	8
Totals	58,338	6,361	3	7	5,142	16	4	Aver.	2 2 $\frac{1}{4}$	Aver.	1 9 $\frac{1}{2}$		



## ***B.—Sanitary Circumstances of the District.***

THE WATER SUPPLY is mainly from two service reservoirs belonging to the Weardale and Consett Water Company. The reservoirs are: Waskerley (capacity 450 million gallons), situated 1,178 feet above Ordnance datum, and Tunstall (capacity 520 million gallons) situated 720 feet above Ordnance datum; the water of the former has the property of acting on lead, but this is counteracted by the addition of 1 cwt. of quick lime to every million gallons. The supply is constant and is a good upland surface water.

Localities and dwellings not supplied by the above company are: Dwellings in the Civil Parishes of South Bedburn (population 226), Hamsterley (pop. 425), Windlestone (pop. 188), Bolam (pop. 124), and 190 (approximately) outlying scattered dwellings. These depend upon springs and wells for their water supply.

(Note:—I understand the Weardale and Consett Water Company made investigations and found that the pressure in the mains was not sufficient to carry the water as high as Bolam).

Part of the Civil Parish of Lynesack and Softley is supplied from the water works of the Barnard Castle Rural District. A small number of houses in the township of St. Andrew's, Auckland, is supplied from the water works of the Urban District of Auckland.

In Newton Cap 50 houses were found without a sufficient water supply owing to defects in the distributing water main, which has since been remedied. Six houses in West Auckland were found to be without a proper water supply, but owing to other defects representations were made under Section 17 of the Housing and Town Planning, etc. Act, 1909, regarding these houses. One house in Byers Green was found to be supplied by a spring in the cellar.



Three houses at Old Cold Knot Colliery are without a proper water supply, but the owners have promised to have the houses supplied from the mains of the Weardale and Consett Water Company.

**POLLUTION OF RIVERS AND STREAMS.**—In a coal mining district such as the Auckland Rural District more or less pollution is inevitable from the Bye-products associated with such industry. The District Council of late years have constructed sewage purification works in connection with populous centres and a number are now under construction. Further particulars of these works are given under Drainage and Sewerage.

**DRAINAGE AND SEWERAGE.**—With the exception of scattered hamlets and dwellings, the following Civil Parishes are sewered: St Andrew's Auckland, St. Helen's Auckland, West Auckland, North Bedburn, Byers Green, Coundon, Coundon Grange, Eldon, Evenwood and Barony, Escomb, Hamsterley, Hunwick and Helmington, Helmington Row, Middlestone, Merrington (parts not of modern construction), Middridge (part not of modern construction), Newfield, Windlestone and Witton-le-Wear.

The Civil Parishes not sewered are: South Bedburn (pop. 226), Binchester (pop. 50), Bolam (pop. 124), Lynesack and Softley (pop. 2,706), Middridge (pop. 452), Middridge Grange (pop. 79) and Whitworth Without (pop. 77).

Sewage Disposal works are provided for the following Civil Parishes (exclusive of scattered hamlets and dwellings): St. Andrew's Auckland, North Bedburn, Byers Green, Coundon, Coundon Grange, Eldon, Hamsterley, Helmington Row (not for Sunnybrow), Middlestone, Merrington, Newfield, Pollard's Lands, Westerton, and Witton-le-Wear.

The following Purification Works:—Evenwood South End (for dealing with sewage from part of Evenwood); Gaunless

Valley (for dealing with sewage from St Helens, West Auckland, and parts of St Andrew and Evenwood townships); and Hunwick (for dealing with sewage from Hunwick) were completed or about to be completed towards the end of 1913.

That for the village of Witton Park was in progress towards the beginning of 1914.

The provision of Sewage Works for dealing with the sewage from the village of Sunnybrow was under consideration.

**CLOSET ACCOMMODATION.**—The Rural District Council at their meeting held on the 3rd March, 1914, decided in future to enforce throughout the whole district wherever practicable the Public Health Acts Amendment Act, 1907, Section 39 (2), which the Council had adopted. This means that practically all new houses erected in the district in future will have to be provided with water-closets instead of "ash-closets" as formerly.

Towards the end of 1913 the Council served over one hundred notices under Section 36 of the Public Health Act, 1875, to provide water-closets in place of the conservancy system (relating mainly to houses with no proper access for scavenging).

During the year 46 water-closets were substituted for 30 ashpit privies and 5 ash-closets; 153 ashpit privies were replaced by 197 ash-closets.

If in place of privy-middens in the more populous areas the Council insisted on water-closets instead of "ash-closets," it would ultimately prove advantageous to all concerned.

The following table shows the approximate number of closets of each type remaining in the district at the end of the year and the number on the conservancy system converted to the water-carriage system classified according to townships.

TOWNSHIPS	NUMBER OF :						
	Houses	Water Closets	Ash Closets	Ashpit Privies	Pail Closets	Water Closets substituted for	
						Ashpit Privies	Ash closets
Auckland St. Andrew*	1,154	124	919	65	...	4	...
Auckland St. Helen's*	329	8	300	16	...	..	1
Binchester	11	2	7	3	...	...	...
Bolam	26	...	11	15	...	...	...
Byers Green*	499	31	286	101	...	11	4
Coundon*	1,426	63	1,208	86	1	9	1
Coundon Grange*	787	22	670	76	...	...	...
Eldon*	338	7	91	238	...	...	...
Escomb*	593	35	516	30	..	3	...
Evenwood and Barony*	1,014	10	727	92	..	...	...
Hamsterley	107	...	17	90	...	...	...
Helmington Row*	1,061	64	766	52	...	2	...
Hunwick and Helmington*	596	20	410	83	2	...	...
Lynesack and Softley	573	...	202	120	...	...	...
Merrington*	197	9	144	39	2	...	...
Middlestone*	433	7	381	24	...	...	...
Middridge	100	4	40	50	...	...	...
Middridge Grange	14	..	5	9	...	...	...
Newfield*	254	3	200	38	...	...	...
Newton Cap*	232	3	208	18	...	...	...
North Bedburn*	536	25	398	68	..	...	...
Old Park	154	1	148	6	...	...	...
Pollard's Lands	261	15	143	37	...	2	...
South Bedburn	50	...	10	40	...	...	...
West Auckland*	918	27	786	61	...	9	...
Westerton	123	1	94	17	1	...	...
Whitworth Without	17	5	6	9	...	...	...
Windlestone	40	4	20	10	...	...	...
Witton-le-Wear*	495	38	150	120	...	...	...
	12,338	528	8,863	1,613	6	40	6

\* Certain areas of these Townships can be considered populous and closely built.

### **Scavenging.**

In fifteen townships (census population, 48,089) the scavenging is done under contract with the District Council. The principle conditions of contract were given in the report for 1912.

There are seventy different scavengers employed and it is not to be wondered at that this method of performing the scavenging has proved to have many disadvantages especially in a district where proper scavenging is so essential owing to the method of excrement disposal being mainly on the conservancy system.

The most satisfactory method for scavenging the district is for the District Council to undertake the work, but unfortunately this no doubt would prove more expensive.

Some of the drawbacks of the existing system may be enumerated as follows:—

- (1) There are no covered carts in use.
- (2) Removal sometimes carried out at undesirable hours.
- (3) Not uncommon for refuse to be left in the vicinity of houses for long periods.
- (4) For the current year owing to the insufficient competition the Council had to accept four scavengers that proved very unsatisfactory in the past.
- (5) Some tips are not satisfactory and when tendering some of the scavengers do not give the situation of the proposed tip.

This latter difficulty might be overcome by the Council providing the “tips,” instead of the scavengers as at present.

In fourteen townships (census population, 10,249) the scavenging is undertaken by the owners or tenants.

The following is a report by the Inspectors on the manner in which the scavenging was attended to during 1913.

#### NO. 1 SUB-DISTRICT.

Inspector Liddle reports as follows:—

**BEDBURN NORTH** (sub-divided into eight districts with five contractors).—“On the whole the scavenging was fairly well done.”

**BYERS GREEN** (One district with one contractor).—“The scavenging was fairly well done.”

**BOUNDON** (sub-divided into seven districts with six contractors).—“In No. 1 district (Contractor Dawson) the work on many occasions was carried out during prohibited hours and in other respects not in accordance with the conditions of contract. In No. 6 district (Contractor Adam Davidson, junior) the scavenging was carried out very unsatisfactory.” “In the remaining districts in this township the work was done satisfactorily.”

**BOUNDON GRANGE** (sub-divided into three districts with two contractors).—“In No. 1 district (Contractor Davidson and Sons), the work was not satisfactorily done.”

**HELMINGTON ROW** (sub-divided into six districts with five contractors).—“With the exception of No. 6 district (Contractor Straker and Love) the work was satisfactorily done. The tip for No. 6 district is becoming a serious nuisance.”

**HUNWICK AND HELMINGTON** (sub-divided into thirteen districts with four contractors).—“On the whole the work was satisfactorily done.”

**MERRINGTON** (One district with one contractor).—“The work was not carried out in accordance with the conditions of the contract (Contractor Johnson).”



MIDDLESTONE (sub-divided into three districts with 3 contractors).—"The work was satisfactory."

"In the seven townships not scavenged under contract with the Council the work with the exception of Toronto, in the township of Newton Cap, was satisfactory, although I had occasionally to complain regarding Eldon and Newfield townships."

#### NO. 2 SUB-DISTRICT.

Inspector Dowson reports as follows:—

ST ANDREW'S, AUCKLAND (sub-divided into seven districts with seven contractors).—"In districts Nos. 2 and 3 (Contractors Sowerby and Brenkley and Son), the work was not done satisfactorily."

ST HELEN'S, AUCKLAND (sub-divided into three districts with three contractors).—"The scavenging in this township was satisfactorily done."

ESCOMB (sub-divided into eight districts with five contractors).—"The scavenging in this township has been done satisfactorily."

EVENWOOD AND BARONY (sub-divided into fourteen districts with thirteen contractors).—"The work of the contractor of No. 4 district (Contractor Harrison) has been very unsatisfactory and not by any means in accordance with the terms of the contract. The remaining districts in this township were on the whole satisfactorily scavenged."

POLLARD'S LANDS (sub-divided into seven districts with four contractors).—"The scavenging in this township has been fairly well carried out."

WEST AUCKLAND (sub-divided into eleven districts with five contractors).—"The scavenging of Nos. 6, 8, and 9 districts (Contractor Jackson) was not carried out according to the conditions of contract. In the remaining districts of this township the work was done satisfactorily."

WITTON-LE-WEAR (sub-divided into six districts with six contractors).—" With the exception of No. 6 district (Contractor Guy) the work was satisfactorily done."

" In the townships not scavenged under contract with the Council the scavenging was on the whole satisfactorily done."

The expenditure upon disinfectant powder used by scavengers for the years 1905-1913 has exceeded £1200.

The comparative figures for the years 1901 and 1913 being given in the following table.

TOWNSHIPS.	1905 Average Cost £3 17s 6d per ton			1913 Average Cost £4 12s 6d per ton			Total Cost for Years 1905-1913		
	£	s	d	£	s	d	£	s	d
Auckland St. Andrew's	8	4	6	10	17	4	112	6	11
Auckland St. Helen's ...	1	11	0	7	3	4	42	10	7
Binchester	...	...	...	...	...	...	...	...	...
Bolam	...	...	...	...	...	...	...	...	...
Byers Green	2	5	9	6	0	3	43	0	3
Coundon	7	14	6	19	13	1	145	7	9
Coundon Grange	4	18	9	9	5	0	96	8	9
Eldon	5	19	3	5	15	8	49	11	11
Escomb	2	12	0	7	12	8	65	8	5
Evenwood & Barony	5	12	9	15	14	6	140	11	2
Hamsterley	...	...	...	...	...	...	...	...	...
Helmington Row	4	5	3	14	2	2	88	19	0
Hunwick & Helmington	5	1	0	12	19	0	62	19	3
Lynesack and Softley...	...	...	...	1	3	2	3	2	2
Merrington	0	11	9	1	17	0	15	4	8
Middlestone	6	3	9	8	1	11	69	17	1
Middridge	...	...	...	0	18	6	2	16	0
Middridge Grange	...	...	...	...	...	...	0	18	9
Newfield	1	7	9	1	3	1	10	14	4
Newton Cap	0	3	9	4	3	3	10	11	6
North Bedburn	4	1	6	6	4	10	60	12	2
Old Park	...	...	...	1	3	1	10	17	1
Pollard's Lands	2	5	9	6	9	6	42	3	1
South Bedburn	...	...	...	...	...	...	...	...	...
West Auckland	4	16	9	16	13	0	127	19	10
Westerton	...	...	...	0	9	3	1	10	0
Whitworth Without	...	...	...	...	...	...	...	...	...
Windlestone	...	...	...	...	...	...	...	...	...
Witton-le-Wear	4	4	9	9	0	5	63	14	3
Totals	72	2	6	166	10	0	1267	4	11



The following table compares the cost of scavenging in each of the townships in which the work is done by contract, for the two years, 1901 and 1913.

CIVIL PARISHES.	1901		1913		Cost per Family	
	No. of Families	Cost	No. of Families	Cost	1901	1913
		£		£ s d	s d	s d
Auckland, St. Andrew's	712	289	1154	401 15 0	8 1½	6 11½
Auckland St. Helen's	186	84	329	101 5 0	9 0½	6 1½
Bvers Green ...	484	135	499	133 0 0	5 6¾	5 4¾
Coundon ...	749	189	1428	414 8 0	3 8½	5 9¾
Coundon Grange ...	725	266	787	200 10 0	7 4	10 2½
Escomb ...	783	240	593	224 15 0	6 1½	7 6¾
Evenwood & Barony ...	856	212	1014	309 2 6	4 11½	6 1
Helmington Row ...	819	291	1061	528 0 0	7 1¼	6 1½
Hunwick & Helmington	504	231	596	181 9 0	9 2	6 1
Merrington ...	137	29*	197	42 0 0	4 2¾	4 3
Middlestone ...	347	135	433	114 10 0	7 9½	5 3½
North Bedburn ...	493	162	536	148 10 0	6 6¾	5 4½
West Auckland ...	748	256	918	266 18 0	6 10½	5 9½
Pollard's Lands ...	269	75	261	101 1 6	5 6¾	7 8¾
Witton-le-Wear ...	562	168	495	152 0 0	5 11¾	6 1½
	8374	2762	10301	3519 4 0	Aver. 6 7¼	Aver. 6 10

\* Scavenged by contract for the first time 1904.

SANITARY INSPECTIONS OF DISTRICT.—The following is a classified statement made by each of the inspectors of the number of premises visited, the defects or nuisances discovered, and the action and result of action taken in regard to these.

Tabular Statement of Inspections, etc., during 1913, made by Mr Jonas Liddle, Sanitary Inspector of No. 1 Sub-district; area, 16,421; population, 31,273.

	Number of	
	Premises.	Inspections
Bakehouses .....	1	3
Common Lodging Houses .....	3	12
Dairies and Cowsheds .....	74	148
Factories .....	15	15
Workshops .....	41	47
Workplaces .....	1	3
Houses re Infectious Diseases .....	—	285
Houses re Nuisances or Defects (including Scavenging .....	—	18,895
Housing Inspection .....	6664	494
Houses Reinspected .....	—	25
Slaughter Houses and Butcher's Shops ...	23	65
Total .....	19,992	

Tabular Statement of Inspections, etc., made by Mr Joseph Dixon Dowson, Sanitary Inspector of No. 2 Sub-district. Area, 40,913 acres (2049 unpopulated); population, 27,065.

	Number of	
	Premises.	Inspections
Bakehouses .....	2	2
Dairies and Cowsheds .....	110	110
Factories .....	7	7
Workshops .....	39	39
Diseased Meat .....	—	1
Houses re Infectious Diseases .....	—	237
Houses re Nuisances and Defects .....	—	6,354
Housing Inspection . . . . .	5674	179
Houses Reinspected .....	—	204
Slaughter Houses and Butcher's Shops ...	29	58
Total .....	7,191	

**Summary of Nuisances, etc., dealt with in No. 1 Sub-District (Mr. Jonas Liddle) during the year.**

PUBLIC HEALTH ACTS.		Number of Informal written Notices by Inspector	Number of Formal Notices by order of Authority	Number of Nuisances abated after Notice
Dwelling-	Foul Conditions ...	5	1	5
houses and	Structural Defects...	259	8	80
Schools.	Overcrowding ...	21	6	10
Lodging-houses	...			
Dairies and Milkshops	...			
Cowsheds	... ..	1		
Bakehouses	... ..			
Slaughter-houses	... ..			
Ashpits and Privies	... ..	32	2	27
Deposits of Refuse and Manure	...	24	2	26
Waterclosets...	... ..	9	109	21
Defective Yard Paving	...	23	14	14
	Defective Traps ...	3	1	3
House	No Disconnection from			
Drainage	Sewers ... ..			
	Other Faults ...	36	10	42
Water Supply	... ..	55		52
Pigsties	... ..			
Animals Improperly Kept	...			
Offensive Trades	... ..			
Smoke Nuisances	... ..			
Other Nuisances	... ..	5	1	5
Totals	... ..	473	154	285

PRECAUTIONS AGAINST INFECTIOUS DISEASE.		Number	Remarks
Lots of Infectious Bedding stoved or destroyed ... ..	271		
Houses disinfected after In- fectious Disease ... ..	265		
Schools do. do. ... ..	5		
Prosecutions for exposure of Infected persons or things...	...		
Convictions do. do. ... ..	...		
GENERAL.			
Number of New Houses erected during the year ... ..	97		
Number of such Houses occupied during the year ... ..	97		
Ashpit-privies converted into Ash-closets ... ..	40		40 Ashpit-privies replaced by 46 Ash- closets, also one additional Ash-closet provided.
Ashpit-privies converted into Water-closets ... ..	17		
Ash-closets converted into Water-closets ... ..	2		17 Ashpit-privies replaced by 22 Water- closets, also one ad- ditional Water-closet provided.
Total Number of Water-closets in the District ... ..	263		
Total Number of Ash-closets in the District ... ..	5,017		Two Ash-closets were replaced by four Water-closets.
Total Number of Ashpit-privies in the District ... ..	858		
Total Number of Pail closets in the District ... ..	6		

**Summary of Nuisances, etc., dealt with in No. 2 Sub-District (Mr. Joseph Dixon Dowson) during the year.**

PUBLIC HEALTH ACTS.				Number of Informal written Notices by Inspector,	Number of Formal Notices by Order of Authority.	Number of Nuisances abated after Notice.
Dwelling-	{	Foul Conditions ...	...	4		4
houses and		Structural Defects	...	91	40	99
Schools		Overcrowding ...	...	1	4	4
Lodging-houses		...	...			
Dairies and Milkshops		...	...			
Cowsheds		...	...	2		2
Bakehouses		...	...			
Slaughter-houses		...	...			
Ashpits and Privies		...	...	141	24	149
Deposits of Refuse and Manure		...	...	33		33
Waterclosets		...	...	21	43	23
Defective Yard Paving		...	...	113	42	132
House Drainage	{	Defective Traps ...	...	2	2	4
		No Disconnection from Sewers ..	...			
		Other Faults ...	...	43	4	47
Water Supply		...	...			
Pigsties		...	...	1		1
Animals Improperly Kept		...	...			
Offensive Trades		...	...			
Smoke Nuisances		...	...			
Other Nuisances		...	...			
Totals		...	...	452	159	498

PRECAUTIONS AGAINST INFECTIOUS DISEASE.	Number	Remarks.
Lots of Infectious Bedding stoved or destroyed ... ..	229	
Houses disinfected after In- fectious Disease ... ..	220	
Schools do. do. ..	4	
Prosecutions for exposure of Infected persons or things ...	...	
Convictions do. do. ..	...	
GENERAL.		
Number of New Houses erected during the year ... ..	24	
Number of such Houses occupied during the year ... ..	24	
Ashpit-privies converted into Ash-closets ... ..	113	The 113 Ashpit- privies have been con- verted into 150 Ash- closets.
Ashpit-privies converted into Water-closets ... ..	13	13 Ashpit-privies have been converted into 15 Water-closets.
Ash-closets converted into Water-closets ... ..	3	3 Ash-closets into 3 Water-closets and 1 additional Water- closet provided.
Total Number of Water-closets in the District ... ..	265	The total number of Water-closets, Ash- closets, and Privies and Ash-pits are ap- proximately correct.
Total Number of Ash-closets in the District ... ..	3,846	
Total Number of Ashpit-privies in the District ... ..	755	



***Premises and Occupations which can be controlled by Bye-Laws or Regulations.***

SLAUGHTER HOUSES.—During 1913 there were fifty-two slaughter houses in use in the district (two being licensed, one in West Auckland and one in Etherley, the remaining being registered), as against sixty during 1912. With few exceptions the slaughter houses are in the vicinity of dwelling houses.

Section 169 (2) and (3) and Section 170 of the Public Health Act, 1875, are applicable to the whole district with the exception of the following townships: Binchester, Middridge Grange and Old Park.

The provision of the Act, namely, that the owner or occupier must affix and keep undefaced in a conspicuous place the notice: “Licensed Slaughter House,” or “Registered Slaughter House,” as the case may be, is not being complied with throughout the district.

Bye-laws were adopted for slaughter houses in 1903.

As stated in previous reports systematic inspection of so many slaughter houses in a scattered district is impossible and the fact that no diseased butcher meat came under observation during the year is in itself sufficient evidence.

COMMON LODGING HOUSES.—There are three (two registered) in the district. With regard to one of the registered houses a closing order was made by the Council under Section 17 of the Housing and Town Planning, Etc., Act, 1909, during 1912, but although nothing has been done to render the house fit for human habitation it is still in use as a common lodging house.

In connection with a house used as a common lodging house without the same or keeper being registered, the Council

decided to take legal proceedings unless the house and keeper were registered within two months.

Bye-laws were adopted for common lodging houses in 1903.

TENTS, VANS, ETC.—At the recent census there were only forty-seven persons enumerated in the above class of dwellings, and the Council having so far experienced no administrative difficulties, have not deemed bye-laws necessary.

HOUSES LET IN LODGINGS.—There are no bye-laws in force in the district.

OFFENSIVE TRADES.—There are none in the district. The sections of the Public Health Acts relating to offensive trades are not applicable to the district.

CELLAR DWELLINGS.—There is no need for regulations in respect of underground sleeping rooms, (Housing and Town Planning, Etc. Act, 1909, Section 17 (7)

### ***Schools.***

Instead of resorting to Article 57 of the Code a working arrangement has been made with the School Medical Officer to grant certificates on the advice of the District Medical Officer of Health both for the closure of and the exclusion from school.

Water supply to the schools is in most cases from the Weardale and Consett Water Company's mains.

The Sanitary conveniences provided for Ramshaw School, Evenwood, are on the conservancy system and situated in a position difficult of approach for scavenging purposes, but the matter is, I understand, receiving the attention of the Education Authority.

Owing to the prevalence of infectious diseases the following schools were closed for the months specified.

The schools closed during 1913 under Article 45.

Schools.		Diseases.		Months.
Binchester Cl.	...	Measles	...	Nov. and Dec.
Coundon C.E. (Infants)	...	Rumps	...	Feb. and Mar.
Coundon C.E. (Mixed)	..	Measles	...	Nov. and Dec.
Coundon C.E. (Infants)	...	Measles	...	Nov. and Dec.
Coundon R.C.	..	Measles	...	Nov. and Dec.
Howden-le-Wear (Mixed)	...	Scarlet Fever		January
Howden-le-Wear (Infants)	...	Scarlet Fever		January
Haggerleases Cl. (Infants)	...	Measles	...	September
Haggerleases Cl.	...	Measles	...	October
Lynesack C.E.	...	Whooping Cough	...	June and July
Lynesack C.E.	...	Measles	...	December
Leeholme	...	Measles	...	Nov. and Dec.
Lands Bank (Infants)	...	Measles	...	Nov. and Dec.
Morley	...	Measles	...	Nov. and Dec.

### **Food.**

**MILK SUPPLY.**—In the district there are one hundred and eighty-four registered dairies and cowsheds compared with one hundred and eighty-eight in 1912. During the year informal notices were served regarding overcrowding and sanitary defects relating to three cowsheds. Two new cowsheds for housing over twenty cattle were erected at one farm.

**OTHER FOODS.**—During the year one consignment of fish was condemned. The three bakehouses in the district were found satisfactory.

The Sale of Food and Drugs Acts and Milk and Cream Regulations, 1912, are administered by the County Council.

### **Housing.**

The recent report on Housing and Town Planning issued by the Local Government Board opens with the following remarks:—

“The problem of the housing of the working classes in England and Wales is one which has occupied a prominent position both with the Public and with Parliament during the past few years, and it is undoubtedly one of the most serious social problems of the present day. The problem resolves itself into three main parts. The first is concerned in the maintenance and improvement of existing houses, the second with the provision of new houses where required, and the third with the cleansing and improvements of the slum areas.”

The following particulars relating to the district are concerned mainly with the first of these:—

In the report for 1912 was given a table showing a detailed classification of the houses in the district at the last census.

The houses not in single occupation being few, the table on page 14 of the present report can be taken as the number of houses in the district classified according to size.

At the end of 1913 it was estimated that there were 12,338 dwelling houses in the district, and of these there are 11,132 within the limit of rent applicable to the district under Section 14 of The Housing and Town Planning, etc. Act, 1909 (*i.e.* £16 per annum).

During the year 692 houses were inspected under and for the purposes of Section 17 of The Housing and Town Planning, etc. Act, 1909—particulars as to inspection, etc., according to Article 5 of the Housing (Inspection of district) Regulations,

**Tabular Information and Particulars of the Inspections made during the year 1913 under the Housing (Inspection of District) Regulations, 1910.**

TOWNSHIPS.	The Number of dwellinghouses inspected under the purposes of Sect. 17 of the Act of 1909.	The Number of dwellinghouses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.	The Number of Representations made to the Local Authority with a view to the making of closing orders.	The number of closing orders made.	The Number of dwellinghouses the defects in which were remedied without the making of closing orders.	The Number of dwellinghouses which, after the making of closing orders, were put into a fit state for human habitation.	The general character of the defects found to exist.
Auckland St. Andrew	50	3	1	1	...	...	The chief defects were damp walls, leaking roofs, low badly lighted and ventilated attics and want of general repairs
St. Helen	...	...	6	6	...	...	
Byers Green	193	8	...	...	2	...	
Comdon	49	8	4	4	8	...	
Eldon	4	4	...	...	...	...	
Evenwood and Barony	17	...	...	...	...	...	
Helmington Row	60	22	...	...	...	...	
Hunwick & Helmington	115	2	...	...	18	...	
Merrington	34	1	...	...	...	...	
Middlestone	8	1	...	...	...	...	
North Bedburn	10	...	...	...	...	...	
West Auckland	112	33	10	1	2	2	
Westerton	21	...	...	...	...	...	
Witton-le-Wear	19	19	10	10	...	2	
Totals	692	101	31	22	30	4	



1910, are given on page 47, and the entry under each heading is the transactions of the year under that heading.

During the past year the necessary records according to the Housing (Inspection of District) Regulations have been kept. These records are considered from time to time by the General Purposes Committee who were appointed specially to consider housing and other sanitary matters.

A facsimile of the record form is given in the County Medical Officer's Report for 1912.

During the past year the houses selected for inspection were chiefly those known or likely to have defects, and the subsequent following up entailed a considerable amount of work, and proved more of a time consuming process than the initial inspections, moreover, this method of inspection does not give a true index of the actual housing conditions in the district generally. So many of the notices served by the Council had not been complied with towards the end of the year that the General Purposes Committee recommended that instead of serving more notices owners be enforced to comply with the notices already served.

From an administrative aspect a systematic inspection of defined areas as a regular procedure is perhaps preferable to selecting the supposed worst houses as previously carried out.

**HOUSES UNFIT FOR HUMAN HABITATION.**—As no standard of unfitness is given in the Act, the personal factor comes so much into play and the procedure for selecting the houses for inspection differs in different districts, that the



figures of one district can hardly be compared with those of another.

It can easily be realised that to insert a standard applicable to the whole country in an act of parliament would be an exceedingly difficult matter, but there is no reason why certain conditions that would make a house unfit should not be set out, for instance whether back to back houses as a whole or certain types of them are to be classed as unfit, and if conditions were set out with regard to sleeping rooms wholly or partly in the roof similar to those in Section 17 (7) as regards underground sleeping rooms they would serve as a useful guide to many Local Authorities, especially in the mining districts in the North of England.

The Local Government Board acting as an appeal court cannot advise Local Authorities on a particular house, as that same house later might be the subject of an appeal.

During the year the Council made 22 closing orders and served 36 notices under Section 15 of The Housing and Town Planning, etc. Act 1909; these are given in more detail under Townships. Of the houses inspected during the year and considered unfit for human habitation, but in which no closing orders were made:—4 have been demolished, 3 were discontinued as dwelling houses, and 3 were vacated and the owners undertook not to relet them until made in all respects reasonably fit for human habitation.

Since the Housing and Town Planning, etc. Act 1909 came into operation the District Council have made closing orders relating to 79 dwelling houses, particulars of which are given in the following table:—

No. of Houses.	Locality.	Year in which closing order was made.	Condition at end of 1913.
8	Cross Row, Thistleflat ...	1910	uninhabited*
4	Short Row, Coundon ..	1910	rebuilt
1	Spring Well Cottage, Church Hill, Crook ..	1910	rebuilt
1	Front Street, St. Helen Auckland	1910	rebuilt
2	Front Street, Evenwood ...	1910	rebuilt
8 (back to back)	High Street, Byers Green	1910-1911	made habitable through houses
2	Witton Park ...	1911	uninhabited
2	Marshall's Yard, Coundon	1911	partly remedied
2	West Auckland ...	1911	uninhabited
1	Lodging House, Rotton Row, Helmington Row	1912	occupied
4	Rotton Row ..	1912	uninhabited
3	Toft Hill ...	1912	1 unoccupied, 2 demolished
1	Mill Cottage, South Church	1912	demolished
2	The Hollow, Thistleflat ..	1912	uninhabited
1	Hetherington's Yard, Old Wheatbottom ...	1912	partly remedied
1	Middlestone Village ..	1912	demolished
5	Old Witton Park ..	1912	3 unoccupied, 2 remedied
9	West Auckland ..	1912	{ 2 partly remedied, 3 unoccupied, 4 demolished
6	St. Helen Emma Pit (3), Shades Barn (2), White Cottage (1) ...	1913	unoccupied
1	41, New Street, West Auckland	1913	unoccupied
10	Victoria Cottages, Witton-le-Wear Township ..	1913	being remedied
1	Burns Cottage, Fielden's Bridge, St. Andrew ..	1913	occupied
4	25, 26, 27, and 28, Church Street, Coundon ..	1913	occupied
79			

\* Owners have promised to demolish these houses.

**DEMOLITION.**—At the expiration of three months after a closing order has been made it is the duty of the local authority to consider whether they will make a demolition order. If the local authority is satisfied that the dwelling house has not been rendered fit for human habitation, and that the necessary steps are not being taken with due diligence to render it so fit, the local authority is legally bound to make a demolition order, but its operation can be postponed for six months. At the expiration of the six months, if the local authority is satisfied that the house has not been rendered fit for human habitation, they have no legal option but to demolish the dwelling house. This has not been carried out with regard to a number of dwelling houses, particulars of which are given in the foregoing table.

During the years 1912 and 1913 there were 1543 houses inspected under and for the purposes of Section 17 of the Housing and Town Planning, etc. Act 1909. Of these 1516 were within the rent applicable to the district under Section 14 of the Act (*i.e.* £16 per annum). Of the latter 237 were considered as unfit for human habitation, and at the end of 1913, of these 169 were still in that condition, but 51 by that time were unoccupied.

In addition there were 434, although not considered to be in a state so dangerous or injurious to health as to be unfit for human habitation, were seriously defective from the point of view of danger to health or structural defaults; and at the end of 1913 there were 391 of those still in such defective condition.

**HOUSE ACCOMMODATION.**—There are no vacant houses in the following townships:—St Helen Auckland (in the vicinity of West Auckland where there are vacant houses); Binchester (only a small township of 11 houses); Bolam (a small agricultural township of 26 houses); Byers Green; Coundon; Coundon Grange; Eldon; Hamsterley (agricultural township of about 100 houses); Helmington Row (a large

number of overcrowding in this township, but building operations active); Hunwick and Helmington (in the vicinity of Newfield where there were vacant houses at the end of the year); Merrington; Middridge Grange (only a small township of 12 houses); Middlestone; Newton Cap (the houses are owned by colliery companies, and are always kept occupied by their workmen); Pollard's Lands (a number of houses occupied by men working outwith the township); South Bedburn (only 50 houses, mainly farms); Westerton (no known demand for houses); Whitworth Without (only a small township of 17 houses); Windlestone (only a small agricultural township of 40 houses).

In the following townships there are vacant houses, but owing to no great demand these houses have not been kept in repair:—St Andrew Auckland; Escomb (a large number); Evenwood and Barony; Lynsack and Softley (a large number); West Auckland; Witton le Wear (a large number).

In the township of Newfield, owing to the closing down of a colliery, a number of houses have become vacant.

The following townships have vacant houses in all respects reasonably fit for human habitation:—St Andrew Auckland and West Auckland.

OVERCROWDING.—On page 26 is given the population living under various conditions of room accommodation in the district at the time of the last census.

During the year in 25 cases the conditions were such that administrative action was deemed necessary, and at the end of the year 14 of these had been abated.

In the townships of Byers Green and Helmington Row, owing to all the available houses being occupied, it was found difficult to get known overcrowded cases abated.





NEW HOUSES.—During the year 122 new houses were erected, and 37 were in course of erection (with the exception of 6 all were for the working classes.

These are classified according to township in the following table:—

	Erected.	Number In Course of Erection.
St Andrew Auckland .....	12	—
Byers Green .....	1	—
Eldon .....	12 (4) *	10
Evenwood and Barony .....	7	—
Helmington Row .....	71 (1) *	20
Hunwick and Helmington .....	6	—
Lynsack and Softley .....	2	—
Merrington .....	6	3
Middlestone .....	1	—
North Bedburn .....	—	4
Pollard's Lands .....	1 (1) *	—
West Auckland .....	3	—
Totals .....	122	37

\* The number within the brackets refer to houses not for the working classes.

SUPERVISION OVER THE CONSTRUCTION OF NEW HOUSES IN RELATION TO BYE-LAWS.—New bye-laws relating to new streets and buildings were approved by the Local Government Board in 1903. These were amended with regard to width of back street and height of rooms in 1910.

All plans are considered by the Plans Committee, and if the building is erected in accordance with the bye-laws the Sanitary Surveyor grants a certificate of habitation.

*St. Andrew Auckland.*—The houses at Coppycrooks given in the 1912 annual report as unfit for human habitation has been the subject of much correspondence, but towards the end of 1913 the actual repairs were proceeded with.



At Fielden's Bridge 43 houses were inspected, each consisting of one room on the ground floor and one bedroom on the first floor. The ground rooms have a window area equal to about 1-24 of the floor space; the bedrooms are of the attic type, the height varying from  $4\frac{3}{4}$  feet at the eaves to  $8\frac{1}{2}$  feet at the ridge, the lighting to floor area being about 1-30; the lower room ventilates directly into the upper room and in some of the houses the bedroom is without a fireplace; there are also certain minor defects.

One closing order was made with respect to a house that nothing short of rebuilding could have made it fit for human habitation.

*St. Helen Auckland.*—The owners having failed to carry out any repairs, closing orders were made relating to six of the houses reported unfit for human habitation in the 1912 annual report. At the end of 1913 these houses were unoccupied. One house unfit for human habitation has been closed voluntarily.

Repairs were carried out relating to 43 houses; these consisted of new floors, windows, and general repairs.

BYERS GREEN.—Towards the close of the year the Parish Council decided that there was insufficient house accommodation at Byers Green, and made a formal complaint to the District Council requesting the latter to take advantage of part iii of the Housing of the Working Classes Act 1890. The matter is receiving the consideration of the District Council, who have instructed their officers to carry out a systematic inspection of all the houses at Byers Green, taking special note of conditions of overcrowding. This inspection is being carried out as speedily as possible. Towards the end of March, 1914, no doubt as the result of the publicity given to the complaint made by the Parish Council, a private builder bought land and submitted plans for ten houses for the working classes, which he proposes to erect forthwith.

*Coundon*.—During the year 5 houses, 2 being back to back) were made into three good houses: the two back to back houses were converted into a single through house, of the houses reported as unfit during 1912, 8 were sufficiently remedied to remove them from the class of “Unfit for human habitation.”

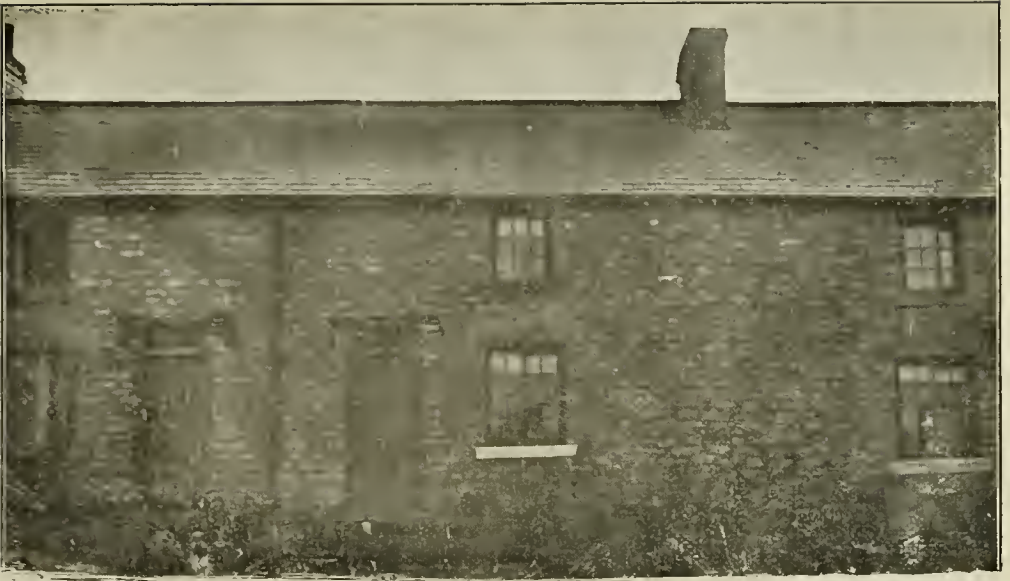
*Eldon*.—The owners of the colliery (Messrs. Pease & Partners, Ltd.) are gradually renovating the existing insanitary dwellings in the village, raising the roofs, providing each house with a self-contained yard. The alterations are being carried out according to the building bye-laws in force in the district. The owners with the first houses altered, instead of raising the roofs, provided large dormer windows, and although this was a great improvement on the original conditions, was less satisfactory than the raising of the roofs as now carried out and depicted by the photographs produced on the opposite page.

*Escomb*.—There is ample house accommodation in this township, especially in the village of Witton Park, see page 27 of this report. Owing to no demand for houses these are not kept in repair.

During the year the following improvements were carried out in the village of Escomb:—22 ashclosets were provided in place of insanitary privy middens, coal-houses provided and yards cemented to 15 houses, 4 single apartment houses were made into two double apartment dwellings. In the village of Witton Park 8 dilapidated houses were renovated.

*Evenwood and Barony*.—Towards the close of the year the North Beechburn Coal Company were carrying out extensive improvements to 43 houses at Copeland Row and Chapel Street, providing where possible a self-contained yard and scullery to each house. The Company have also undertaken to provide dormer windows to the back bedrooms.

*Helmington Row*.—Twenty-two of the houses inspected during the year were of the back-to-back type, but of these 8



#### PHOTOGRAPHS OF DWELLING-HOUSES AT ELDON.

The upper Photograph shows a front view of the houses as originally erected. The lower Photograph shows a front view of the same houses after the roofs have been raised (note the larger windows), and other improvements carried out. Each house is provided with a large front garden.







Photograph of insanitary dwelling-houses (accommodation one room and an attic) at present in occupation in the Village of Sunnybrow (note the proximity of the next row of houses). Towards the end of March, 1914, the owners undertook to replace these by houses similar to those depicted by the next Photograph.



Photograph of dwelling-houses (accommodation four rooms) in the Village of Sunnybrow, erected on the site of insanitary dwelling-houses (similar to those in the upper Photograph) demolished.





have been put into a fit state except that through ventilation has not been provided.

In this township there is at present insufficient house accommodation, but so far private enterprise has been active, for during 1912 no fewer than 51 dwelling houses for the working classes had been erected, during 1913, 70 and at the beginning of 1914 a plan for 50 workmen's dwellings was presented by one builder.

During 1912, of the 57 houses found unfit for human habitation 45 were in the village of Sunnybrow, and the District Council have been urging the owners to proceed more rapidly with the provision of suitable houses for their workmen, in place of the many that are at present unfit for human habitation. Although the owners have carried out extensive improvements during the last two years much remains to be done. Towards the beginning of 1914 they had undertaken to demolish forthwith all the houses in Central and Chapel Streets and erect on the sites modern dwellings for their workmen. The old and new type of workmen's dwellings in the village of Sunnybrow are depicted by the photographs on the opposite page.

*Hunwick and Helmington.*—In this township, although all the available houses are occupied, there is no known demand. One of the collieries in the vicinity, which in 1911 employed 161 men, was closed down during 1913.

There are a large number of back-to-back houses in the village of Hunwick, and most of these are provided with closet accommodation on the conservancy system without proper means of access for scavenging purposes. Towards the end of the year notices were served on the owners under Section 36 of the the Public Health Act 1875, to provide sufficient water closets for 58 houses.

One house found unfit for human habitation has since been converted into a wash-house for the adjoining tenants.

*Merrington.*—Of the houses inspected 1 was unfit for human habitation, 17 had serious sanitary defects, 7 of the latter being back-to-back. Of the remaining 10 some had damp walls, some insufficient light, and some dilapidated.

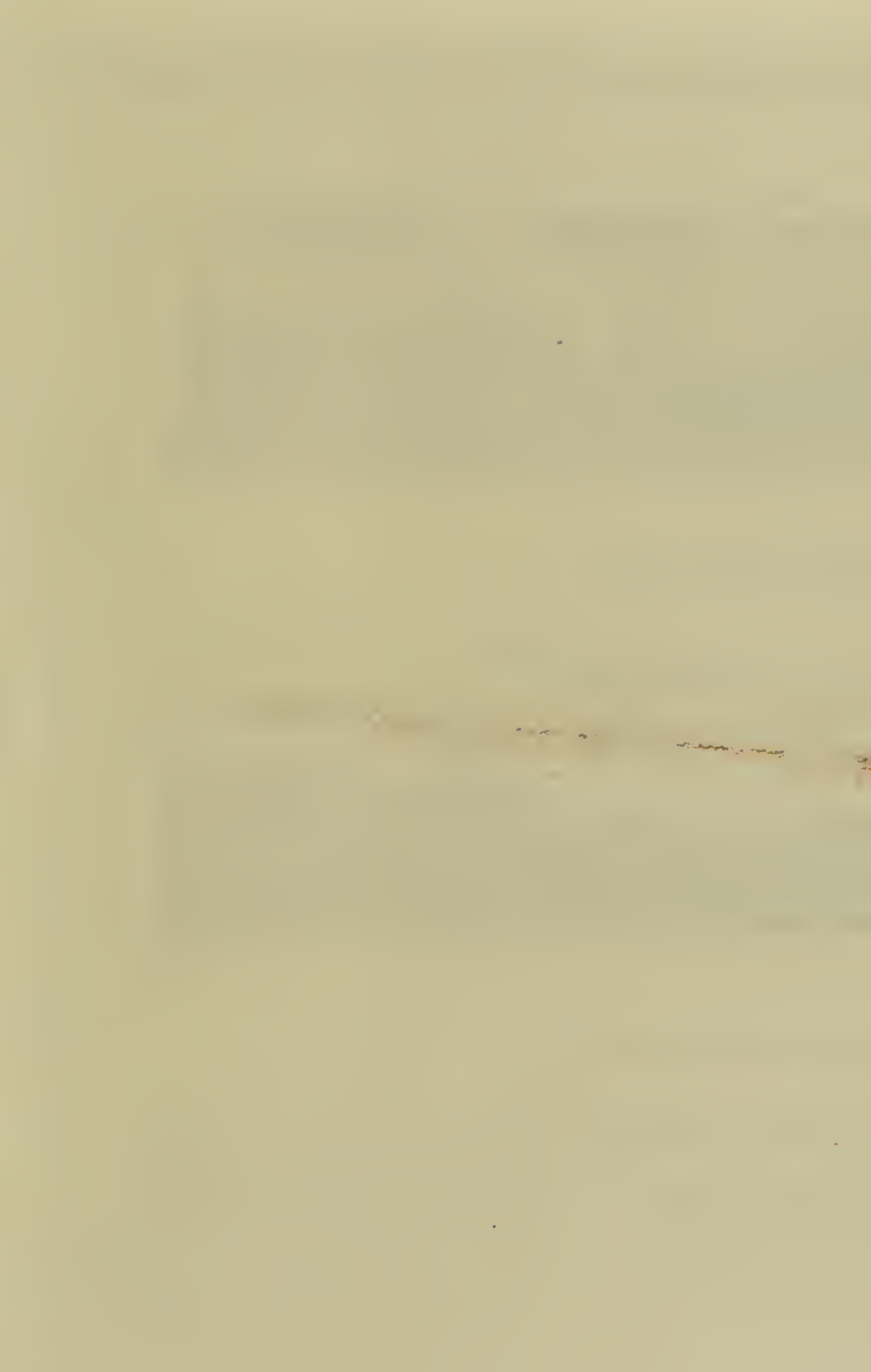
*Middlestone.*—Of the 8 houses inspected 1 was unfit for human habitation, the latter cottage being unoccupied, and the owner has undertaken not to relet it until made in all respects reasonably fit for human habitation. Six were of the back-to-back type.

*North Bedburn.*—Of the 10 houses inspected 3 had serious sanitary defects—one had a room over a stable (this the owner has promised to remedy); two had insufficient lighting area.

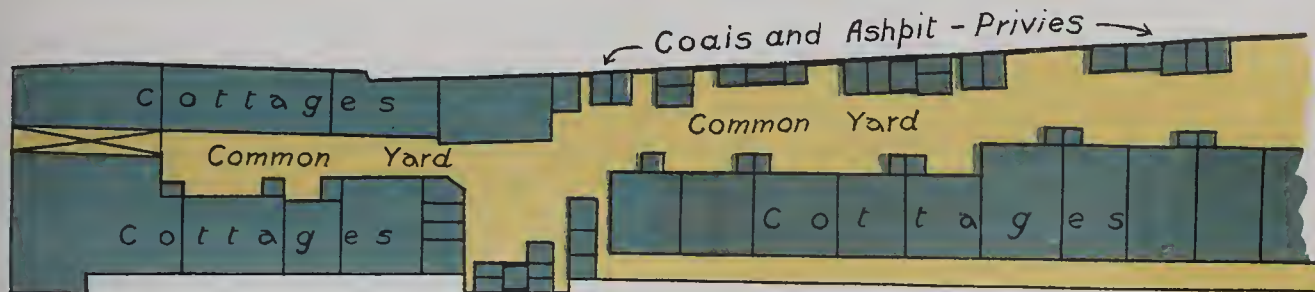
*West Auckland.*—Owing to fewer men being employed at the colliery there is ample house accommodation, and this allowed the Council to deal with insanitary dwellings.

One area known as Stokoe's yard and Diamond Terrace was so congested that without demolishing certain houses, nothing of a permanent improvement could be carried out. The owners (Messrs Bolkow, Vaughan & Company, Ltd.) submitted a scheme involving the demolition of three dwelling houses and a number of insanitary privy middens, and with the purchase of land from the adjoining owner allowed 24 houses to be provided with self-contained or joint yard accommodation, and a proper street. This scheme the Council approved of, and the actual improvements were nearing completion by the end of the year. The benefit of this improvement can best be realised by comparing a ground plan of the former with the present conditions. This is shown by the plans on the opposite page, kindly prepared by Mr Charles Heslop, the Sanitary Surveyor.

A row of 8 houses at Post Office Square, regarding 3 of which closing orders had been made, the Council decided to purchase, in order to carry out a needed road improvement.

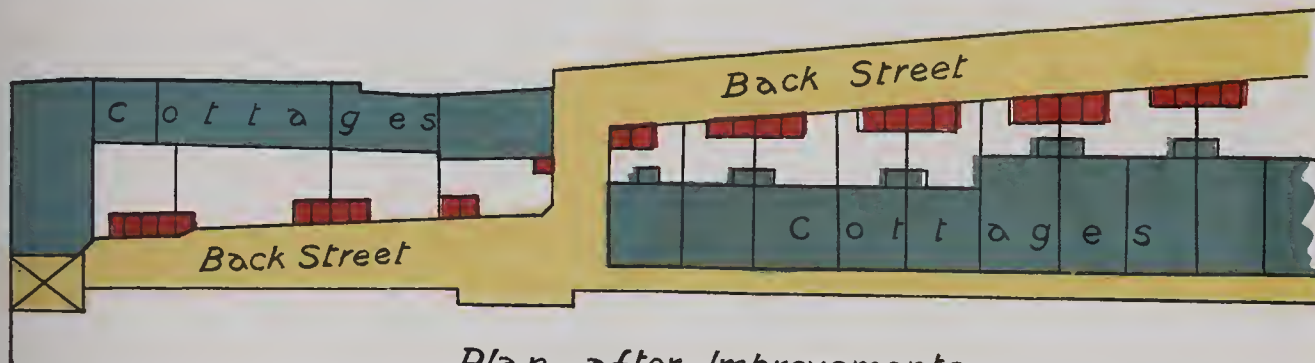


Front Street



Plan prior to Improvements

Front Street



Plan after Improvements

SANITARY IMPROVEMENTS AT STOKOE'S YARD  
AND DIAMOND TERRACE, WEST AUCKLAND

Scale 40 feet to 1 Inch

C. HESLOP

and to remove an obstruction to the light and ventilation of the adjoining dwellings.

Of the 6 houses regarding which closing orders were made during 1912, 4 were demolished and 2 partially remedied.

One house unfit for human habitation was unoccupied at the end of the year, and the owner has undertaken not to relet it until made fit.

A large number of dwelling houses in this township are provided with closet accommodation on the conservancy system without proper access for scavenging. The Council have asked that these houses be inspected, and by the end of the year had served notices under Section 36 of the Public Health Act, 1875, on owners of 41 houses to provide sufficient water closets.

With regard to 9 houses (Brewery Cottages) representations were made, but the owners requested the Council not to make closing orders as they (the owners) were considering a scheme, and would submit the same to the Council; this had not been received by the end of the year, but three of the houses were then unoccupied.

During the year 27 notices were served under Section 15 of the Housing and Town Planning, etc. Act 1909, but only part of the work specified in the notices had been carried out.

*Westerton*.—Of the 21 houses inspected 11 had serious sanitary defects, such as dampness and dilapidation.

*Witton le Wear*.—The 19 houses inspected were considered unfit for human habitation.

The Council made closing orders relating to 10 houses (not applicable to Section 15) and notices were served under

Section 15 of the Housing and Town Planning, etc. Act 1909 relating to the remaining 9 houses.

Towards the end of the year these houses were only partially remedied.

### ***Street Making.***

During the year a considerable amount of work under the Private Street Works Act (as represented by an expenditure of £760) was carried out by the Council.

### ***Factories, Workshops, Workplaces and Home Work***

There are in the district 22 Factories, 80 Workshops, and 1 Workplace.

There is no Home Work carried on in the district.

Of the 8 defects found on inspection, 7 were remedied before the end of the year.

The following tabular statements give particulars for inspection, etc., during the year:—



1.—Inspections (including Inspections made by Inspectors of Nuisances).

Premises.	Inspections.	Written Notices	Prosecutions.
Factories (including Factory Laundries) ...	22	3	...
Workshops (including Workshop Laundries)	86	...	...
Workplaces (other than Outworkers' premises) ...	3	...	...
Total ...	111	3	...

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts : *</i>				
Want of cleanliness ...	3	3	...	...
Want of ventilation ...	1	1	...	...
Overcrowding ...	...	...	...	...
Want of drainage of floors ...	...	...	...	...
Other nuisances ...	...	...	...	...
Sanitary Accommodation { insufficient unsuitable or defective ...	2	1	...	...
{ not separate for sexes ...	2	2	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) ...	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ...	...	...	...	...
Other offences ...	...	...	...	...
Total ...	8	7	...	...

\* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

**C.—Sanitary Administration of the District.**

The staff is as follows:—

Medical Officer of Health...J. F. MACDONALD, M.D., D.P.H.

Inspector of Nuisances—Sub District, No. 1.

J. LIDDLE (Cert. Royal San. Inst.).

Inspector of Nuisances—Sub District, No. 2.

J. D. DOWSON (Cert. Royal San. Inst.).

Clerk to Medical Officer ..... GILBERT J. LAVERICK.

The Council employ a man to disinfect houses, etc.

The work of each Inspector, in addition to his statutory duties, includes the Inspection of Houses under and for the purposes of Section 17 of the Housing and Town Planning, etc. Act 1909. The duties of the Disinfector consist of disinfection of houses after the removal recovery, or death of a patient, and the supervision of scavenging under the direction of the two Inspectors.

For administrative purposes the district is divided between the two Inspectors as shown in the table on the following page.

TABLE SHOWING DIVISION OF THE DISTRICT BETWEEN THE TWO INSPECTORS.

No. 1 Sub-District (Inspector Liddle).			No. 2 Sub-District (Inspector Dowson).		
Township	Acreage	Population Census	Township	Acreage	Population Census
Binchester ...	506	50	Auckland, St. Andrew	1,275	5,604
Byers Green ...	1,070	2,487	Auckland, St. Helen ...	1,510	1,622
Coundon ...	794	6,912	Bolam ...	1,013	124
Coundon Grange ...	669	3,627	Escomb ...	1,029	2,783
Eldon ...	1,421	1,657	Evenwood and Barony...	5,437	4,987
Helmington Row ...	1,303	4,841	Hamsterley ...	2,985	425
Hunwick and Helmington	1,977	2,464	Lynesack and Softley ...	3,742	2,706
Merrington ...	1,646	882	Middridge ...	1,132	452
Middlestone ...	893	1,984	Middridge Grange ...	977	79
Newfield ...	206	1,202	Pollard's Lands ...	1,896	1,123
Newton Cap ...	1,304	1,192	South Bedburn ...	10,039	226
North Bedburn...	2,843	2,542	West Auckland ...	3,407	4,471
Old Park ...	414	835	Windlestone ...	1,188	188
Westerton ...	699	521	Witton-le-Wear ...	3,192	2,271
Whitworth Without ...	583	77	Lands (common to Evenwood and West Auckland) ...	42	3
Unpopulated area ...	3		Unpopulated area ...	2,049	
Total ...	16,421	31,273	Total ...	40,913	27,065

HOSPITAL ACCOMMODATION.—Accommodation is provided by the Auckland, Shildon and Willington Joint

Hospital Board, consisting of representatives appointed by the following Sanitary Authorities:—

Rural District of Auckland	Census Population	58,338
Crook Urban District	... do.	12,308
Shildon Urban District	... do.	13,488
Tow Law Urban District	... do.	4,324
Willington Urban District	... do.	8,731
Total Population ...		<hr/> 97,189

The Sanitary Authorities have control over the administration of the Hospitals through their representatives on the Board.

The Physician to Number 2 Hospital advises me that they have not the nursing staff to enable them to admit patients under two years of age. The matter, I understand, is receiving the consideration of the Joint Hospital Board.

During the year at least seven cases were admitted from the Auckland Rural District that were not notified to that Authority.

At present there is no official return of admissions or discharges received by the Sanitary Authority.

The Hospitals for ordinary Infectious diseases are:—No. 1 (20 beds) situated at Tindale Crescent in the township of St. Andrew, and No. 2 (20 beds) situated at Helmington Row in the township of Helmington Row.

Three diseases can be isolated in each of the Hospitals at the same time. The table on page 71 shows that 316 cases were admitted from the Rural district of Auckland. During the early part of the year, owing to the prevalence of Scarlet Fever, the accommodation proved insufficient. The Hospital Board has been granted a loan for extending the accommodation in each Hospital for 14 extra beds, and the actual buildings are now nearing completion. The two Hospitals will be able

to accommodate 68 adult patients (2,000 cubic feet for each patient).

The Smallpox Hospital is situated in the township of Byers Green

The medical staff of the Hospitals is separate and distinct from that of the Auckland Rural district.

### ADOPTIVE ACTS, BYE-LAWS AND REGULATIONS IN FORCE IN THE DISTRICT.

The following are applicable to the whole district:—

Provision of Section 39 of the Act of 1875 (Public Necessaries). Date of Order: 28th August, 1895.

Provisions of the Towns Improvement Clauses Act of 1847 with respect to the Naming of Streets and Numbering of houses. Date of Order: 11th September, 1897.

Provisions of Section 26 of the Act of 1875 (building over sewers, etc.). Date of Order: 18th April, 1905.

Provision of Section 28 of the Town Police Clauses Act 1847. Date of Order: 10th February, 1898.

All the provisions of the Infectious Disease (Prevention) Act 1890. Date of Order: 18th February, 1896.

Provisions applicable to Rural Districts of Part III., (Sections 29, 30, and 31 not included) of the Public Health Acts Amendment Act 1890. Date of Order: 18th February, 1896.

The following provisions of the Public Health Acts Amendment Act 1907:—

Sections 15 to 18 (inclusive) 20 to 25 (inclusive).

27 to 33 (inclusive) comprised in Part II.

Sections 34 to 50 (inclusive) comprised in Part III.

Sections 52 to 65 (inclusive) and 68 comprised in Part IV.

Sections 69 to 75 (inclusive) comprising Part V.

There are certain conditions and adaptations with regard to the following—Sections 27, 30, 35, 38, 59, and 75.

Date of Order; 18th August, 1913.

Urban powers with reference to making Bye-laws for removal of Houses refuse and same to be considered special expenses. Date of order: 1891

### BYE-LAWS AND REGULATIONS.

		Approved by the L.G.B.
New Streets and Buildings	...	*1903
Slaughter-houses	...	1903
Prevention of Nuisances	...	1903
Common Lodging-Houses	...	1903
Houses Let in Lodgings	...	None in force.
Cleansing of Footways, Ashpits, etc.		„
Tents, Vans, etc.	...	„
Dairies, Cowsheds and Milkshops	...	1909

\* Amended with regard to width of back street and height of rooms (1910).

The following are applicable to the contributory places stated:—

Compulsory Order by the Local Government Board under Section 42 of the Act of 1875 requiring the District Council to undertake contract for the removal of house refuse, etc., in the following contributory places:—Auckland, St. Andrew; Auckland, St. Helen; Auckland, West; Bedburn, North; Coundon; Coundon Grange; Escomb; Evenwood and Barony; Helmington Row; and Pollard's Lands. Date of Order: 8th May, 1897.

Order declaring cleansing of Ashpits, etc., in remaining 19 townships to be special expenses. Date of Order: 1904.

Provisions of the Towns Improvement Clauses Act of 1847 with respect to Slaughter-houses, incorporated with the Act of



1875 by Section 169 (sub-Section 2 and 3) and of Section 170. This applies to all the district with the exception of the townships of Binchester, Middridge Grange and Old Park. Date of Order: 8th May, 1897.

Provision of Section 161 (1st paragraph) of the Public Health Act 1875 (Lighting) is in operation in the following townships:—

	Date of Order.
Helmington Row .....	28th July, 1879
Newton Cap .....	25th February, 1904
Pollard's Lands .....	18th March, 1907
Witton le Wear .....	30th December, 1891

In most of the other townships the Parish Council have adopted the Lighting and Watching Act 1833, which give similar powers to the Parish Council.

Local Government Board orders are obtained for street making as required.

No chemical analysis of importance was carried out during the year.

THE BACTERIOLOGICAL WORK is carried out at the Bacteriological Department of the College of Medicine, Newcastle-on-Tyne by arrangement with the County Council.

Most of the medical practitioners in the district realise the importance of Bacteriology as an aid to diagnosis, and take advantage of the arrangement made by the County Council.

### ***D.—Prevalence of and Control over Acute Infectious Diseases.***

During the year 679 cases (including Tuberculous cases) were notified, as against 1401 for the preceding year. The decline is mainly due to the diminished number of Scarlet Fever cases.

The number of cases notified week by week of each disease is given on the table on page 69, and the same is diagrammatically represented for Enteric Fever, Diphtheria, and Scarlet Fever on the chart facing page 70.

The following comparative incidence of diseases is that supplied by the Local Government Board. The figures for 1912 are based on the census population of 1911, that of 1913 on the estimated population of 1912.

The incidence of Scarlet Fever in the Auckland Rural District for 1913 was 7·02 per 1000 of the population as against 19·23 for the preceding year.

For 1913 the district had the fourth highest incidence of the disease of the 14 Rural Districts in the County; and was slightly higher than that of the neighbouring Urban District of Crook (with 6·44) and the administrative County of Durham (with 5·93).

The incidence of some of the districts in the neighbouring County of Northumberland showed a higher incidence than that of the district.

The incidence of Diphtheria in the district was 1·37 during 1913 as against 1·82 for the preceding year. The incidence of the disease in the administrative County (with 1·53) and in the neighbouring Urban District of Crook (with 1·93) was higher than that of the district.

The incidence of Enteric Fever for 1913 was 0·51 as against 0·32 for the preceding year, that for the administrative County for 1913 being 0·38, and for the total of Rural Districts in the County 0·45, both being slightly lower than that of the district.

The incidence of Puerperal Fever for 1913 was 0·02 as against 0·05 for the preceding year.

The incidence of Erysipelas for 1913 was 0·83 as against 0·98 for 1912.

# Weekly Statement of Notifiable Diseases during 1913.

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Week ended	Scarlet Fever	Diphtheria	Enteric Fever, including Continued Fever	Erysipelas	Cerebro Spinal Meningitis	Acute Anterior Poliomyelitis	Puerperal Fever	Pulmonary Tuberculosis	Other Tubercular Diseases	Total
January	4 24	4	...	1	...	...	...	2	...	31
	11 19	4	1	...	...	...	...	...	...	24
	18 16	4	1	4	...	...	...	...	...	25
	25 19	...	1	2	...	...	...	4	...	26
February	1 27	3	2	1	...	...	...	2	...	35
	8 22	2	2	1	...	...	...	3	3	33
	15 12	2	1	1	...	...	...	1	...	17
	22 7	2	1	1	...	...	...	1	3	15
March	1 14	4	1	1	...	...	...	3	3	26
	8 6	2	...	...	...	...	...	1	2	11
	15 8	...	...	...	...	...	...	3	...	11
	22 8	1	1	1	...	...	...	2	...	13
	29 4	2	...	...	...	...	...	1	1	8
April	5 8	3	...	2	...	...	...	...	1	14
	12 8	1	1	3	...	...	...	...	...	13
	19 11	...	2	2	...	...	...	2	2	19
	26 2	...	...	1	...	...	...	1	...	4
May	3 8	...	...	...	...	...	...	3	1	12
	10 3	4	...	...	...	...	...	2	1	10
	17 3	...	...	3	...	...	...	7	1	14
	24 6	...	2	...	...	...	...	4	...	12
	31 4	3	3	...	...	...	...	2	...	12
June	7 2	1	1	2	...	...	...	3	1	10
	14 2	...	1	1	...	...	...	...	...	4
	21 4	2	...	1	...	...	...	1	4	12
	28 3	1	...	1	...	...	...	2	4	11
July	5 3	1	1	...	...	...	...	...	2	7
	12 3	4	1	...	...	...	...	1	2	11
	19 9	...	...	2	...	...	...	3	...	14
	26 3	1	...	1	...	...	...	...	2	7
August	2 3	3	...	...	...	...	...	2	...	8
	9 1	1	...	...	...	...	1	...	...	3
	16 6	...	...	2	...	...	...	1	...	9
	23 6	...	...	1	...	...	...	...	...	7
	30 7	1	1	...	...	...	...	1	2	12
September	6 5	...	1	1	...	...	...	1	...	8
	13 6	...	1	...	...	...	...	...	1	8
	20 7	4	1	2	...	...	...	...	2	16
	27 5	1	2	1	...	...	...	...	...	9
October	4 7	...	...	...	...	...	...	1	1	9
	11 6	...	...	1	...	...	...	1	...	8
	18 6	1	1	...	...	...	...	5	1	14
	25 2	2	...	...	...	...	...	2	...	6
November	1 6	2	...	1	...	...	...	4	...	13
	8 11	...	1	3	...	...	...	...	1	16
	15 10	2	...	...	...	...	...	...	1	13
	22 4	2	...	1	...	...	...	1	1	9
	29 10	3	...	1	...	...	...	...	1	15
December	6 7	...	...	1	...	...	...	...	...	8
	13 2	2	...	2	...	...	...	1	1	8
	20 6	3	...	...	...	...	...	1	1	11
	27 6	1	...	1	...	...	...	...	...	8
	397	79	31	50	...	...	1	75	46	679

During recent years an increased proportion of the cases have been removed to hospital as is seen in the following table :—

PERCENTAGE OF CASES REMOVED :				
Year.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Total.
1901	5·2	4·4	16·5	7·7
1902	13·7	9·5	38·8	14·0
1903	4·5	19·1	32·0	10·0
1904	10·6	21·7	48·6	17·2
1905	18·8	36·2	50·9	34·0
1906	16·6	26·5	50·0	31·1
1907	18·0	45·0	41·6	22·1
1908	18·4	27·6	54·3	32·1
1909	32·3	38·9	70·9	37·8
1910	43·2	21·4	70·0	43·9
1911	42·7	54·8	76·9	49·6
1912	40·6	64·1	94·7	43·4
1913	58·6	69·6	87·0	62·1

### ***Disinfection.***

At each Isolation Hospital there is a steam disinfecter (steam under pressure) and the District Council have made arrangements with the Hospital Board for the latter to carry out the disinfection of clothing, bedding, &c.

The District Council employs a man part of whose duty is to disinfect rooms after the removal, recovery, or death of a patient suffering from an infectious disease. Houses are disinfected by fumigation with sulphur or formaline vapour, and disinfectants are supplied to occupiers of infected houses.

# CASES NOTIFIED DURING 1913

SCARLET FEVER, DIPHTHERIA AND TYPHOID FEVER.

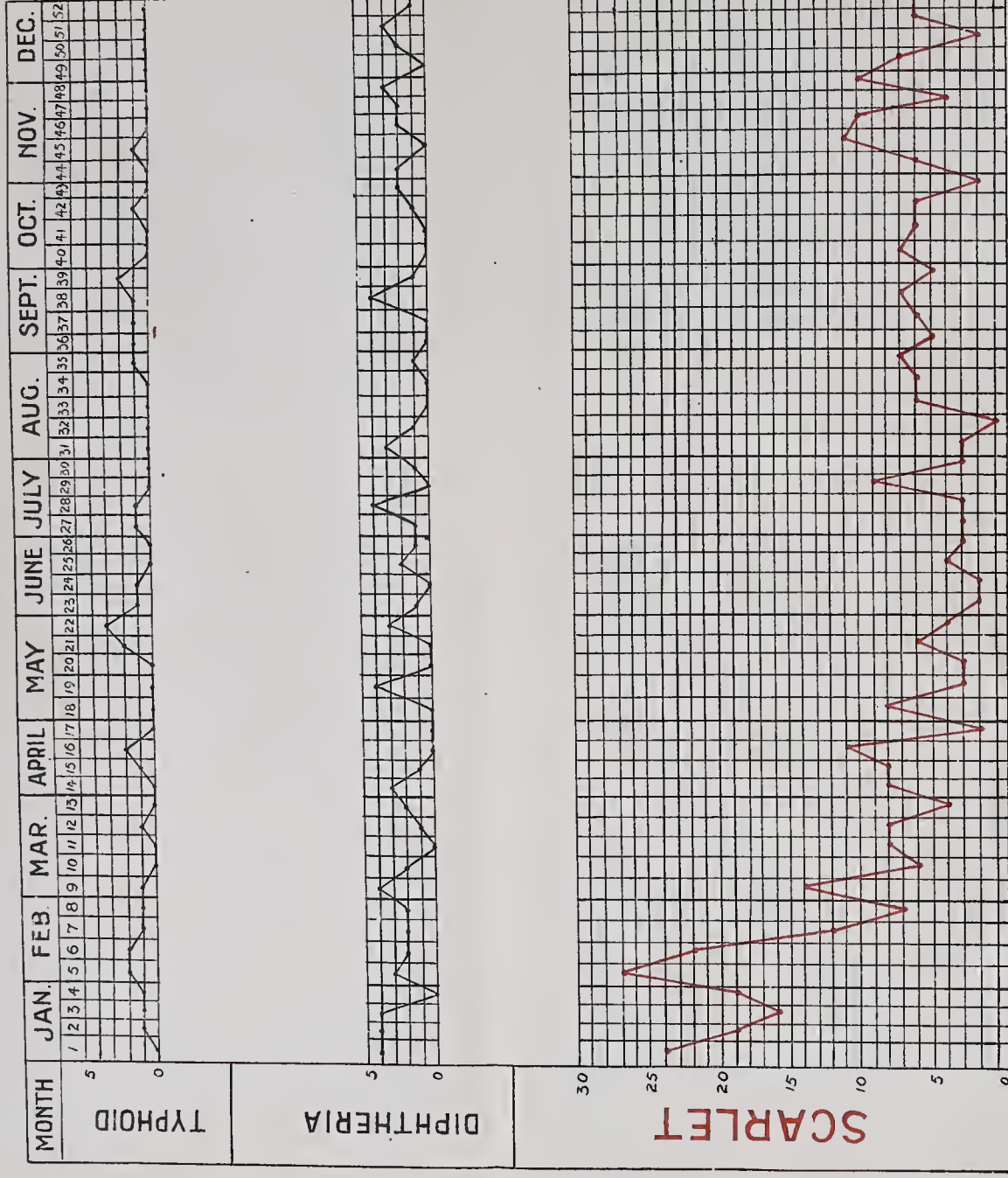






TABLE II (of L.(I.B.)—*Cases of Infectious Disease notified during the year 1913.*

NOTIFIABLE DISEASE	NUMBER OF CASES NOTIFIED							Total cases Removed to Hospital
	At all Ages	At Ages—Years						
		Under 1	1 and under 5 yrs	5 and under 15 yrs	15 and under 25 yrs	25 and under 45 yrs	45 and under 65 yrs	
Small-pox	...	...	...	...	...	...	...	...
Cholera (C) Plague (P)	...	...	...	...	...	...	...	...
Diphtheria (including Membranous group)	79	1	17	50	9	2	...	55
Erysipelas	...	1	1	2	6	18	7	...
Scarlet fever	397	7	121	242	21	6	...	233
Typhus fever	...	...	...	...	...	...	...	...
Enteric fever	30	...	1	13	11	5	...	27
Relapsing fever (R) Continued fever (C)	1	...	...	...	1	...	...	1
Puerperal fever	1	...	...	...	...	1	...	...
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...
Poliomyelitis	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	75	...	2	14	21	29	9	...
Other forms of Tuberculosis	46	4	7	20	7	5	3	...
Totals	679	13	149	311	76	66	27	316
Isolation Hospitals : {	No. 1 Hospital, Tindale Crescent, St. Andrew Auckland	{						Auckland, Shildon, and Wellington Joint Hospital Board
	No. 2 Hospital, Helmington Row, near Crook							

Isolation } No. 1 Hospital, Tindale Crescent, St. Andrew Auckland  
Hospitals : } No. 2 Hospital, Helmington Row, near Crook  
{ Auckland, Shildon, and Wellington Joint Hospital Board

### **Enteric Fever.**

During the year 31 cases (in 24 families) were notified, as against 19 for the previous year.

The following table shows the age and sex incidence of the disease, also the number of deaths at the various age periods:—

			1-5 Years.	5-15 Years.	15-25 Years.	25-45 Years.	Total.
Males	...	...	1	5	5	3	14
Females	...	...	—	8	7	2	17
Totals	...	...	1	13	12	5	31
Deaths	...	...	—	2	1	—	3

The occupations of the 8 adult male patients were:—7 miners and 1 horsekeeper. The female adult patients, with the exception of 1 dressmaker, carried out household duties.

**SOURCE OF INFECTION.**—Of the cases notified, 2 were imported, 1 was probably infected by a sister, 5 probably by two “missed” cases—(a specimen of blood from one of these gave the agglutination reaction).

A small epidemic of 9 cases in one short street probably originated from a “missed” case, but unfortunately I was not able to get a specimen of blood from this person, as he had left the district.

Many of the cases were very mild, a number having been diagnosed on the strength of the agglutination test, and I have no doubt, but for the use made by medical practitioners of bacteriology as an aid to diagnosis, the nature of the illness of some of those notified would have been overlooked.

**HOSPITAL ISOLATION.**—With the exception of 4—1 of which had proved fatal by the time notification was received—all the cases were removed to hospital.

The table on page 69 shows the incidence of the disease week by week throughout the year; this is diagrammatically represented on the chart facing page 70. The table facing page 72 shows for each township the number of cases notified and removed to hospital month by month.

**Table showing the Number of Enteric Fever Cases Notified and Removed to Hospital, classified according to Month and Township, for the Year 1913.**

Notified	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	
Auckland, St. Andrew	4	1	...	2	...	1	...	1	1	...	1	...	14	Removed to Hospital
Auckland, St. Helen	3	4	...	2	...	1	...	...	1	...	1	...	12	"
Auckland, West	1	...	...	...	...	...	1	...	...	...	...	...	1	"
Bedburn, North	1	...	...	1	...	1	1	...	1	...	...	...	1	"
Bedburn, South	...	...	...	...	...	1	...	...	1	...	...	...	2	"
Binchester	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Bolam	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Byers Green	...	...	...	...	2	...	...	...	...	1	...	...	3	"
Counon	...	1	1	3	1	1	...	...	...	1	...	...	2	"
Counon Grange	...	1	1	3	1	1	...	...	1	...	...	...	6	"
Eldon	...	...	...	...	...	...	...	...	1	...	...	...	1	"
Escomb	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Everwood and Barony	...	...	...	...	...	...	...	...	1	...	...	...	1	"
Hamsterley	...	...	...	...	...	...	...	...	1	...	...	...	1	"
Hunwick and Helmington	...	...	...	...	...	...	...	...	1	...	...	...	1	"
Helmington Row	...	...	...	...	...	...	...	...	1	...	...	...	1	"
Lynesack and Softley	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Meirington	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Middlestone	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Middridge	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Middridge Grange	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Newfield	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Newton Cap	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Old Park	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Pollard's Lands	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Westerton	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Windlestone	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Whitworth Without	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Witton-le-Wear	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Cases during 1913	5	5	1	3	5	3	1	1	5	1	1	...	31	during 1913
Total Cases during 1912...	4	5	1	2	4	3	1	...	5	1	1	...	27	"
	9	...	2	...	...	...	...	1	3	3	1	...	19	during 1912
	8	...	2	...	...	...	...	1	3	3	1	...	18	"



The following table shows the yearly mortality and morbidity rates since 1901 :

***Enteric Fever.***

Year	No. of Cases	No. of Deaths	Mortality per 100 Cases	Cases per 1,000 of Population	Deaths per 1,000 of Population
1901	* 205 (7)	31	15.1	3.96	0.60
1902	38 (3)	11	28.9	0.72	0.21
1903	49 (3)	13	26.5	0.92	0.24
1904	72 (4)	12	16.6	1.34	0.22
1905	108 (12)	19	17.5	1.98	0.35
1906	102 (2)	17	16.6	1.85	0.30
1907	36 (2)	10	27.7	0.64	0.17
1908	116 (3)	21	18.1	2.05	0.37
1909	55 (2)	10	18.1	0.96	0.17
1910	30 (—)	5	16.6	0.51	0.08
Averages	81.1	14.9	18.3	1.48	0.27
1911	65 (2)	10	15.3	1.11	0.17
1912	19 (—)	3	15.7	0.32	0.05
1913	31 (1)	3	9.6	0.51	0.05

\* No. for each year includes continued Fever Cases which are given separately in brackets.

The above table shows a marked decline in the incidence of the disease during the last 13 years. The same table shows a slight decline in the death-rate during the same period.

***Diphtheria.***

During the year 79 cases were notified as against 106 for the preceding year. The following table gives the age and sex incidence of the disease, with the deaths for each age period :—

		Under 1 Year.	1-5 Years.	5-15 Years.	15-25 Years.	25-45 Years.	Total.
Males	...	—	7	25	3	—	35
Females	...	1	10	25	6	2	44
Totals	...	1	17	50	9	2	79
Deaths	...	—	3	8	1	1	13

The table on page 69 shows the incidence of the disease week by week throughout the year; this is diagrammatically represented on the chart facing page 70. The table facing this page shows for each township the number of cases notified and removed to hospital month by month.

The following table, which compares 1913 with previous years, shows that the incidence of the disease was comparatively high during the year:—

### ***Diphtheria and Membranous Croup.***

Year	No. of Cases	No. of Deaths	Mortality per 100 Cases	Cases per 1,000 of Population	Deaths per 1,000 of Population
1901	180	15	8.3	3.48	0.29
1902	184	23	12.5	3.51	0.43
1903	115	17	14.8	2.17	0.32
1904	69	7	10.1	1.28	0.13
1905	91	13	14.2	1.67	0.23
1906	79	8	10.1	1.43	0.14
1907	38	5	13.1	0.68	0.09
1908	76	11	14.4	1.34	0.19
1909	60	11	18.3	1.05	0.19
1910	28	5	17.8	0.48	0.08
Averages	92.0	11.5	12.5	1.68	0.21
1911	51	9	17.6	0.87	0.15
1912	106	14	13.2	1.78	0.23
1913	79	13	16.4	1.31	0.21

The mortality of 16.4 per 100 cases notified during 1913 is extremely disappointing, and compares unfavourably with those of former years.

If parents called in medical aid, and a reasonable dose of anti-toxin was administered early in the disease, a fatal issue would become a rare occurrence.

**SOURCE OF INFECTION.**—5 were secondary cases, 1 took ill within a few days of the discharge of a brother from



**Table showing the Number of Diphtheria Cases Notified and Removed to Hospital, classified according to Month and Township, for the Year 1913.**

	Notified	Jan	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	
Auckland, St. Andrew	No. of Cases	1	1	1	...	1	2	1	1	...	1	...	2	11	Removed to Hospital
Auckland, St. Helen	"	1	...	1	...	1	1	...	1	...	1	...	2	8	"
Auckland, West	"	5	1	...	...	1	...	...	...	...	1	...	...	8	"
Bedburn, North	"	2	1	...	...	1	3	2	...	1	1	...	...	10	"
Bedburn, South	"	1	1	...	...	1	3	1	...	...	...	...	...	6	"
Binchester	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Bolan	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Byers Green	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Coundon	"	1	...	1	1	...	...	...	...	...	...	1	...	4	"
Coundon Grange	"	1	2	1	...	...	...	...	...	...	...	1	...	4	"
Eldon	"	...	1	...	...	1	...	...	...	...	...	...	...	2	"
Escomb	"	...	1	...	...	1	...	...	...	...	...	...	...	2	"
Evenwood and Barony	"	2	...	1	...	...	...	...	1	...	2	1	...	7	"
Hamsterley	"	1	...	1	...	...	...	...	1	...	2	...	...	5	"
Hunwick and Helmington	"	2	3	...	2	...	...	1	...	2	...	1	1	12	"
Helmington Row	"	1	1	...	2	...	...	1	...	...	...	...	1	6	"
Lynesack and Sofley	"	3	...	1	...	...	2	1	...	...	1	3	1	12	"
Merrington	"	2	...	...	...	...	...	...	...	...	...	3	1	11	"
Middlestone	"	2	...	...	...	...	...	...	...	...	...	...	1	1	"
Middridge	"	...	...	...	...	1	...	...	...	...	...	...	...	...	"
Middridge Grange	"	...	...	...	...	1	...	...	...	...	...	...	...	...	"
Newfield	"	...	3	...	...	...	...	...	...	...	1	...	...	4	"
Newton Cap	"	...	3	...	...	...	...	1	...	...	1	1	...	4	"
Old Park	"	...	...	...	...	...	...	...	...	...	...	...	...	2	"
Pollard's Lands	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Westerton	"	...	...	...	...	...	...	...	1	...	...	...	...	1	"
Windlestone	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Whitworth Without	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Witton-le-Wear	"	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Cases during 1913	"	15	12	4	3	5	7	6	4	3	7	7	6	79	"
Total Cases during 1912...	"	8	8	4	3	5	6	3	7	15	6	4	5	55	during 1913
		4	6	4	2	4	10	8	7	13	13	13	10	106	during 1912
		...	1	2	2	4	3	8	6	13	12	8	10	68	"



the isolation hospital, and 2 proved to be suffering from Scarlet Fever.

In the villages where Diphtheria was more or less prevalent children were absent from school owing to "sore throats," but some of these so-called "sore throats" were probably mild attacks of Diphtheria.

HOSPITAL ISOLATION.—55 cases, or 70 per cent., were removed to hospital.

### ***Scarlet Fever.***

The epidemic which set in towards the end of 1911 continued throughout 1912, declining towards the end of the first quarter of 1913.

The epidemic originating in the western portion of the district, probably from the adjoining districts, gradually spread eastwards along the main communication roads between the various villages. Nearly half of the cases notified during 1913 came under observation during the first quarter.

During the year 397 cases were notified as against 1122 for 1912, the former being equivalent to 6.61, and the latter of 18.93 per 1000 of the population. Two patients were each notified twice during the year, one of these a few days after being discharged from hospital developed a severe attack of the disease; on each occasion the patient suffered from a genuine attack. The other case notified was found not to be suffering from Scarlet Fever the second time notified.

The following tabular statement gives the age and sex incidence, and also the number of deaths at each age period:—

		Under Year.	1-5 Years.	5-15 Years.	15-25 Years.	25-45 Years.	Totals.
Males	...	3	66	104	7	4	184
Females	...	4	55	138	14	2	213
Totals	...	7	121	242	21	6	397
Deaths	...	—	5	4	—	—	9

The table on page 69 shows the incidence of the disease week by week throughout the year; this is diagrammatically represented on the chart facing page 70. The table facing this page shows for each township the number of cases notified and removed to hospital month by month.

As during 1912 there were more females attacked, but the census returns show the population of the district to have more females at the ages when persons are more susceptible to the disease.

The mortality and morbidity rates for 1913 compare favourably with those of former years as is shown in the following table:—

***Scarlet Fever.***

Year	No. of Cases	No. of Deaths	Mortality per 100 Cases	Cases per 1,000 of Population	Deaths per 1,000 of Population
1901	450	16	3.5	8.70	0.30
1902	335	6	1.7	6.40	0.11
1903	380	7	1.8	7.17	0.13
1904	386	12	3.1	7.19	0.22
1905	133	2	1.5	2.44	0.03
1906	108	3	2.7	1.96	0.05
1907	150	6	4.0	2.69	0.10
1908	163	3	1.8	2.89	0.05
1909	340	8	2.3	5.95	0.14
1910	238	2	0.8	4.11	0.03
Averages	268.3	6.5	2.4	4.90	0.11
1911	293	5	1.7	5.00	0.08
1912	1,122	18	1.6	18.93	0.30
1913	397	9	2.2	6.4	0.14

**HOSPITAL ISOLATION.**—During the year 233 or 58.6 per cent. of the cases were removed to hospital, and if the hospital accommodation had not proved insufficient during the first quarter of the year many more would have been removed.

As during the preceding year, mild unrecognised cases proved an important factor in the dissemination of the disease,

**Table showing the Number of Scarlet Fever Cases Notified and Removed to Hospital, classified according to Month  
and Township, for the Year 1913.**

Notified	Jan	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Removed to Hospital
Auckland, St. Andrew	3	4	2	2	1	...	...	3	2	5	7	...	29	"
Auckland, St. Helen	2	4	1	2	...	1	2	3	2	4	5	...	23	"
Auckland, West	4	2	1	...	...	1	1	1	2	3	1	...	18	"
Bedburn, North	5	14	6	2	2	...	7	3	11	3	2	...	78	"
Bedburn, South	3	2	2	2	1	1	5	2	4	3	1	...	38	"
Binchester	15	4	6	1	1	1	1	2	3	...	3	...	48	"
Bolam	8	1	...	...	...	...	...	...	...	...	...	...	...	"
Byers Green	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Coundon	1	1	1	...	1	...	...	...	1	...	...	...	5	"
Coundon Grange	7	11	5	5	2	4	4	9	6	4	11	...	81	"
Eldon	8	5	4	3	2	1	3	9	6	4	4	...	58	"
Escomb	6	7	...	1	3	1	...	...	...	...	...	...	18	"
Evenwood and Barony	7	...	...	1	3	1	...	...	...	...	...	...	8	"
Hamsterley	1	...	...	...	3	1	...	...	...	...	1	...	3	"
Hunwick and Helmington	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Helmington Row	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Lynesack and Softley	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Merrington	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Middlestone	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Middridge	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Middridge Grange	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Newfield	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Newton Cap	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Old Park	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Pollard's Lands	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Westerton	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Windlestone	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Whitworth Without	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Witton-le-Wear	...	...	...	...	...	...	...	...	...	...	...	...	...	"
Cases during 1913	98	62	29	32	19	11	19	21	28	21	37	20	397	during 1913
Total Cases during 1912...	42	24	12	24	14	8	14	19	18	17	24	17	233	during 1912
	32	50	62	71	88	88	73	70	198	167	113	107	1122	
	24	26	34	42	39	27	45	30	46	45	51	47	456	





no fewer than 40 of those notified only came under observation after the first week of the illness.

The following tables show a decided advantage in hospital isolation as regards secondary or subsequent cases among inmates in the same households. The first table takes households as a basis, the second table susceptible individuals in the households (*i.e.* those members in the household of all ages who had not before suffered from the disease), and the third table susceptibles (as above defined) under 14 years of age.

The latter table, which perhaps gives as true an index of the condition as any of the three, shows that on that basis about four times as many subsequent cases occurred in households where patients were isolated at home.

RETURN CASES.—During the year, in 14 households an inmate developed Scarlet Fever after the return of a convalescent case from the isolation hospital—these are included in the following tables:—

No of Rooms in House	Where Primary Cases were removed to Hospital		Where Primary Cases were isolated at Home		Percentage of Households in which Second Cases occurred when the Primary Case was isolated at	
	No. of House- holds	No. in which a Second Case occurred	No. of House- holds	No. in which a Second Case occurred	Hospital	Home
2	56	7	22	5	12·5	22·7
3	33	3	17	4	9·0	23·5
4	70	7	49	8	10·0	16·3
5 and over	35	4	30	14	11·4	46·6
Totals ..	194	21	118	31	10·8	26·2

No. of Rooms in House	Where Primary Cases were removed to Hospital		Where Primary Cases were isolated at Home		Percentage of Susceptibles (under 14) that developed the Disease when Primary Case was isolated at	
	No. of Susceptible Persons in Households	No. of Subsequent Cases	No. of Susceptible Persons in Households	No. of Subsequent Cases	Hospital	Home
2	182	8	62	6	4.4	9.6
3	135	4	69	9	2.9	13.0
4	299	9	186	10	3.0	5.3
5 and over	177	11	129	27	6.2	21.7
Totals...	793	32	446	52	4.0	11.6

No. of Rooms in House	Where Primary Cases were removed to Hospital		Where Primary Cases were isolated at Home		Percentage of Susceptibles that developed the Disease when Primary Case was isolated at	
	No. of Susceptible Persons under 14 years in Households	No. of Subsequent Cases under 14	No. of Susceptible Persons under 14 years in Households	No. of Subsequent Cases under 14	Hospital	Home
2	70	8	19	6	11.4	31.5
3	65	4	20	9	6.1	45.0
4	130	9	56	10	6.9	17.8
5 and over	71	11	44	27	15.4	61.3
Totals...	336	32	139	52	9.5	37.4

### ERYSIPELAS.

During the year 50 cases were notified as against 57 the previous year. During the year 2 deaths occurred. The following gives the age and sex distribution:—

	Under 1	1-5	5-15	15-25	25-45	45-65	65 and upwards	Total
Males ...	—	1	1	3	8	10	2	25
Females	1	—	1	3	10	5	5	25
	—	—	—	—	—	—	—	—
Totals	1	1	2	6	18	15	7	50
Deaths	1	—	—	—	—	1	—	2

## PUERPERAL FEVER.

1 case was notified as against 3 the previous year.

## SMALL-POX.

During the year no cases occurred. The following table shows the number of cases, etc., for the period 1901-1913:—

***Smallpox.***

Year	No. of Cases	No. of Deaths	Mortality per 100 Cases	Cases per 1,000 of Population	Deaths per 1,000 of Population
1901	...	...	...	...	...
1902	1	...	...	0·01	...
1903	29	6	20·6	0·54	0·11
1904	...	...	...	...	...
1905	...	...	...	...	...
1906	...	...	...	...	...
1907	...	...	...	...	...
1908	...	...	...	...	...
1909	...	...	...	...	...
1910	...	...	...	...	...
Averages	3	0·6	20·6	0·05	0·01
1911	...	...	...	...	...
1912	...	...	...	...	...
1913	...	...	...	...	...

CONDITIONS AS TO VACCINATION.—As it is not possible to give the conditions of Vaccination for the Rural district. I give the figures for the years 1907-1913 for the Auckland Union, which includes the neighbouring Urban districts of Bishop Auckland, Crook, Shildon, and Spennymoor, along with the Rural district:—

Year	Births Registered	Successfully Vaccinated	Unsusceptible of Vaccination	Conscientious Objections Received	Percentage of Objectors to Number of Births	Percentage of Successful Vaccination or Unsusceptible
1907	3593	2783	10	796	22	61
1908	3865	1821	5	1392	33	47
1909	3652	1399	2	1706	46	38
1910	3405	1187	3	1801	52	34
1911	3321	1178	5	1702	51	35
1912	3313	1084	1	1834	55	33
*1913	1655	510	1	843	50·9	31

\* First six months.

*The sum of the last two columns does not come to 100 owing to deaths, removals to other districts, etc., before vaccination or certificate of objection was necessary.*

## CEREBRO-SPINAL FEVER AND ACUTE POLIOMYELITIS.

No cases were notified during the year.

MEASLES was prevalent in the following townships:—  
Binchester, Coundon, Evenwood and Barony, North Bedburn,  
and Lynsack and Softley.

During the three years 1911-1913 Measles was responsible for 63 deaths, while during the same period Scarlet Fever was only responsible for 31—a period when the latter disease was exceptionally prevalent.

With these figures one cannot understand why the public, as a rule, look upon Measles as a disease of little or no consequence.

MUMPS and WHOOPING COUGH showed slight prevalence during the year, the former in Coundon and the latter in Lynsack and Softley.

### ***E.—Prevalence of and Control over Tuberculosis.***

The Public Health (Tuberculosis) Regulations 1912 which consolidated and amended the previous orders provided for the notification of all forms of Tuberculosis from the 1st of February, 1913.

Notifications of Pulmonary and non-Pulmonary cases received during the year are classified in the following tables according to sex and age:—

#### **PULMONARY CASES.**

	Under 1	1-5	5-15	15-25	25-45	45-65	65 and upw'ds	Totals
Males ...	...	1	5	16	20	3	...	45
Females ...	...	1	9	5	9	6	...	30
Totals ...	...	2	14	21	29	9	...	75

#### **NON-PULMONARY CASES.**

	Under 1	1-5	5-15	15-25	25-45	45-65	65 and upw'ds.	Totals
Males ...	2	4	5	3	4	3	...	21
Females ...	2	3	15	4	1	...	...	25
Totals ...	4	7	20	7	5	3	..	46

Grand Total	4	9	34	28	34	12	...	121
-------------	---	---	----	----	----	----	-----	-----

The number of cases notified does not give a true index of the number of persons in the district suffering from Tuberculosis, for no fewer than 28 deaths occurred during the year in the district from Tuberculosis without the cases being notified under the Public Health (Tuberculosis) Regulations 1912, and seeing 16 cases were notified only a few days before death suggests that notification is being deferred until late in the disease.



The District Council have made arrangements to provide pocket-flasks, and carry out disinfection of premises, clothing, bedding, etc.

The Council have given instructions that dwelling houses where Tuberculous patients reside should be deemed as selected houses for inspection under and for the purposes of Section 17 of the Housing and Town Planning, etc. Act 1909.

The arrangement suggested in the following letter by the County of Durham Sanatorium Sub-Committee have been agreed to by the District Council:—

“ DEAR SIR,

“ *Prevention and Treatment of Tuberculosis.*

“ At a recent meeting of the County Sanatorium Sub-Committee of the County Council the question of co-operation between the County Authority and the District Sanitary Authorities in respect of the treatment and prevention of Consumption was considered, and I was instructed to inform the District Sanitary Authorities throughout the County that to ensure uniformity and co-operation throughout the County in the work of Prevention and Treatment of Tuberculosis, the County Council are willing, as suggested in the memorandum of the Local Government Board dated 6th December last, to allow their assistant Tuberculosis Medical Officers to undertake duties imposed upon the district Medical Officers of Health by the Tuberculosis Regulations issued by the Board, and to point out that in that case the assistant County Tuberculosis Officers would, for the purpose of the Regulations, be nominally an Officer of the District Council, and would assist as far as possible the District Medical Officer of Health in the carrying out of the Regulations, provided that such assistance did not interfere with the duties required of him by the County Council.



“ And I shall be obliged if you will bring this subject before your District Council at an early opportunity, and acquaint me with their views thereon.”

The Health Visitors Service of the County Council is being utilised in the supervision of Tuberculosis cases. see page 88 of this report.

All institutional treatment is undertaken by the County Council.

### ***F.—Investigation of Other Diseases.***

No outbreak of food poisoning occurred during the year.

SYPHILIS and GONORRHOEA is not unknown in the district, but to what extent there is no conclusive evidence. There are no facilities for modern methods of diagnosis and treatment in the district for these diseases, but there is no reason why the Council, either alone or with the co-operation of the County Council, should not give facilities for at least the former of these.

### ***G.—Means of Preventing Mortality in Childbirth and in Infancy.***

INFANTILE MORTALITY is the annual number of deaths under 1 year of age per 1000 births for the same year.

During the 23 years 1891-1913 the infantile death rate of the district has steadily declined, the five years showing the lowest rates being within recent years. The Medical Officer to the Local Government Board in his second report on Infant and Child Mortality issued recently writes as follows:—“ A great saving of child life has been effected in the last few years. In view of the experience of 1911, it is clear that this saving of life cannot be attributed merely to favourable climatic conditions. It can be claimed with

high probability to be the result of improved sanitary and housing conditions, of more efficient municipal and domestic cleanliness, of education, in Hygiene, of increased sobriety of the population, and of the widespread awakening to the national importance of child mortality, with concentration on efforts of child welfare work such as had never previously occurred."

Table IV (of L.G.B.) on page 85 gives a detailed classification of the nett deaths from stated causes at various ages under 1 year of age.

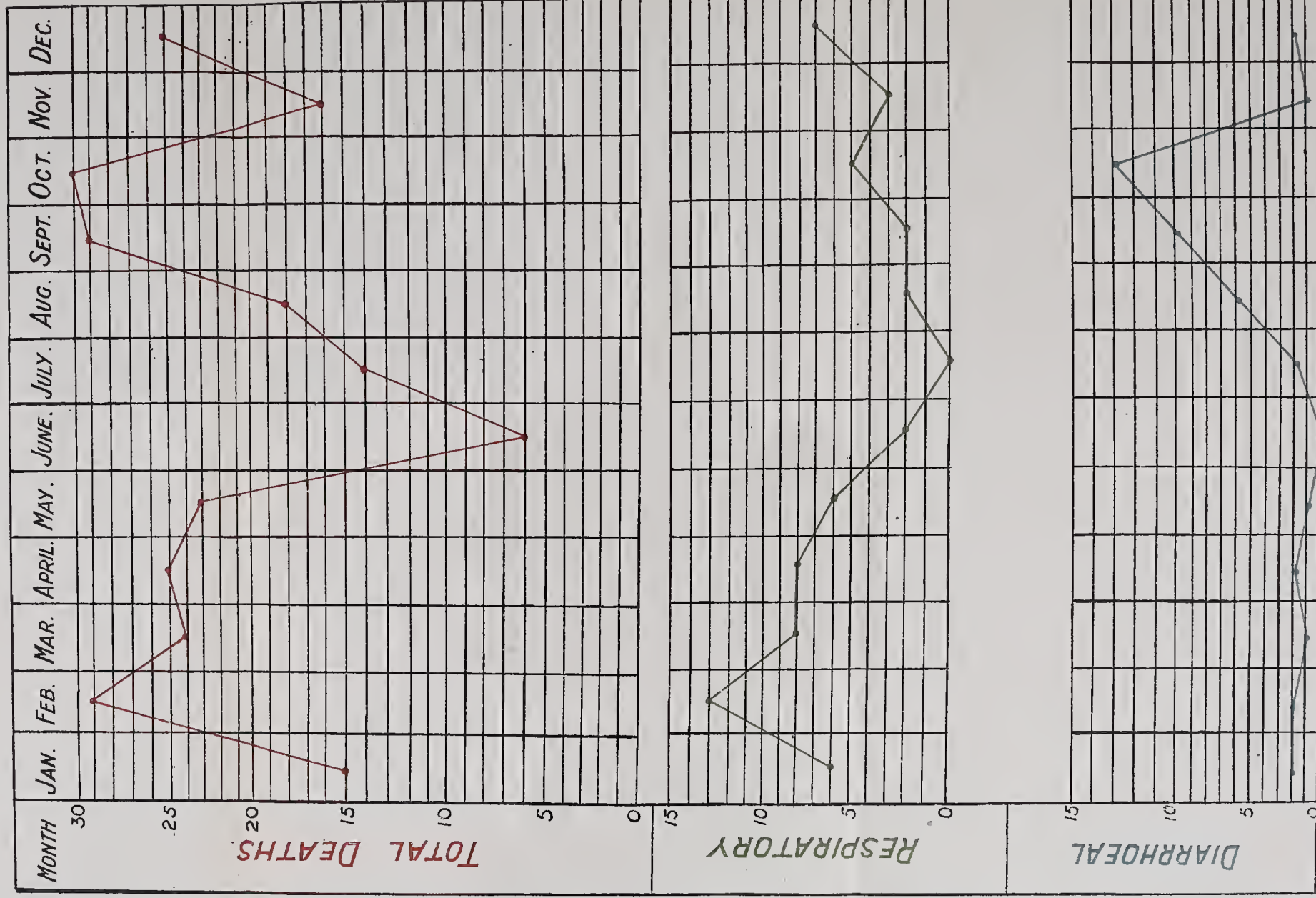
There were 16 deaths of infants in which a medical certificate was not granted as to the cause of death, and with the exception of two deaths due to violence, no formal inquests were held.

The total number of deaths under 1 year of age, those from Diarrhoeal and Respiratory Diseases respectively month by month is shown diagrammatically in the chart facing this page.

The following table gives the number of Infantile deaths classified according to month and cause :—

Month.	Diarrhoeal Diseases.	Respiratory Diseases.	Developmental and Wasting Diseases.	Other Causes.	Total.
January	2	6	4	2	15
February	2	13	9	5	29
March	1	8	13	2	24
April	2	8	6	9	25
May	1	6	10	6	23
June	...	2	3	1	6
July	2	...	7	5	14
August	6	2	6	4	18
September	10	2	11	6	29
October	13	5	7	5	30
November	1	3	8	4	16
December	2	7	6	10	25
Total for 1913	42	62	91	59	254
Total for 1912	15	45	86	58	204

CHART OF INFANTILE DEATHS  
 SHOWING DEATHS FROM RESPIRATORY DISEASES  
 DIARRHOEAL DISEASES AND TOTAL DEATHS, 1913





**Table IV.—INFANT MORTALITY.****1913**—Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.		Under 1 week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 4 Weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under One Year.
All Causes	Certified	61	13	12	4	90	41	42	35	33	241
	Uncertified	2	...	...	...	2	2	7	...	2	13
Small-pox		...	...	...	...	...	...	...	...	...	...
Chicken-pox		...	...	...	...	...	...	...	1	...	1
Measles		...	...	...	...	...	...	...	...	...	...
Scarlet Fever		...	...	...	...	...	...	...	...	...	...
Whooping-Cough		...	...	...	...	...	...	4	3	2	9
Diphtheria and Croup		...	...	...	...	...	...	...	...	...	...
Erysipelas		...	...	...	...	...	...	...	...	1	1
Tuberculous Meningitis		...	...	...	...	...	...	...	...	1	1
Abdominal Tuberculosis		...	...	...	...	...	1	...	2	2	5
Other Tuberculous Diseases		...	...	...	...	...	...	...	...	1	1
Meningitis ( <i>not Tuberculous</i> )		...	...	...	...	...	...	...	1	...	1
Convulsions		3	1	1	1	6	5	7	5	5	28
Laryngitis		...	...	...	...	...	...	...	...	...	...
Bronchitis		...	1	1	1	3	10	15	10	7	45
Pneumonia (all forms)		...	...	...	...	...	1	3	6	7	17
Diarrhoea		...	1	...	...	1	6	5	2	4	18
Enteritis		...	...	1	...	1	6	10	3	4	24
Gastritis		...	...	...	...	...	3	...	...	...	3
Syphilis		...	...	...	...	...	1	...	...	...	1
Rickets		...	...	...	...	...	...	...	...	...	...
Suffocation, overlying		...	...	...	...	...	1	...	...	...	1
Injury at Birth		2	...	...	...	2	...	...	...	...	2
Atelectasis		2	...	...	...	2	...	...	...	...	2
Congenital Malformations		4	3	...	1	8	...	1	1	...	10
Premature Birth		29	2	4	...	35	1	...	...	...	36
Atrophy, Debility and		...	...	...	...	...	...	...	...	...	...
Marasmus		23	1	5	1	33	7	4	1	...	45
Other Causes		...	1	...	...	1	1	...	...	1	3
		63	13	12	4	92	43	49	35	35	254

 Nett Births { legitimate 1740  
 in the year { illegitimate 71

 Nett Deaths { legitimate infants 236  
 in the year of { illegitimate infants 18







The number of deaths under 1 year of age was 254 (27·3 per cent. of the total deaths), equivalent to an annual Infantile death-rate of 140 per 1000 births, and compared with that of 1912 (with the lowest Infantile death-rate recorded) shows a decided increase due mainly to an increased death-rate from diarrhoeal and respiratory diseases, the summer climatic conditions of 1913 being favourable to a high diarrhoeal death-rate.

The comparative figures for the two years, according to cause and age is given in the following two tables:—

DEATHS AT VARIOUS AGES UNDER 1 YEAR OF AGE  
FOR THE YEARS 1912 AND 1913.

Year	under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 months	3-6 months	6-9 months	9-12 months	Total Deaths under 1 year
1912	66	6	15	10	97	28	29	24	26	204
1913	63	13	12	4	92	43	49	35	35	254
Increase (+) Decrease (-) for 1913 compared with 1912	-3	+7	-3	-6	-5	+15	+20	+11	+9	+50

TABLE SHOWING CAUSES OF DEATH UNDER 1 YEAR OF AGE  
FOR THE YEARS 1912 AND 1913.

Year	Notifiable Diseases, exclusive of Tuberculosis	Tuberculosis	Measles	Whooping Cough	Chicken-Pox	Diarrhoea and Enteritis	Respiratory Diseases exclusive of Phtisis	Injury at Birth	Atelectasis	Congenital Debility and Malformation, including Premature Births	Convulsions	Suffocation, Overlying	Other Causes	Totals
1912	1	5	7	2	...	15	44	1	6	86	23	...	14	204
1913	1	7	...	9	1	42	62	2	2	91	28	1	8	254
Increase (+) Decrease (-) of 1913 compared with 1912		+2	-7	+7	+1	+27	+18	+1	-4	+5	+5	+1	-6	+50

The Infantile death-rate of the district compares unfavourably with that for the whole of England and Wales, the former being 140 per 1000 births, and the latter 109; that for England and Wales less than 241 larger towns is only 96 per 1000 births; that for the administrative County of Durham being 137, which is slightly lower than that of the district.

The County Council have adopted the Notification of Births Act, and instituted a Health Visitors Service in the County. The County Council, desirous of having the co-operation of the District Council have communicated as follows:—

“I am directed by the County Health Committee to inform your Council that a County Health Service has now been established in the County, and the County Health Committee are anxious to have the co-operation of the Sanitary Authorities throughout the County in the efforts to reduce Infant Mortality, as well as to prevent Tuberculosis. With this object in view, the County Health Committee are willing that the Health Visitors allocated to your district shall, as far as possible, act under the directions of your Medical Officer of Health in respect to the supervision of births reported under the Notification of Births Act, and the home visiting of cases of Tuberculosis.

“Below I give the names and the addresses of the Health Visitors for your district, and they will receive instructions to put themselves into communication with your Medical Officer of Health.

“The Health Visitors will have certain other duties such as the visiting of defective school children, but they have instructions to carry out the directions of your Medical Officer of Health, provided they do not interfere with the duties required of them by the County Council.”

The District Council have agreed to this arrangement proposed by the County Health Committee, and at the end of the year there were three Health Visitors each having as part of their district an area situated in the Auckland Rural District, and already their services are being appreciated by the mothers visited, which is almost a certain sign of the ultimate success of the service.

Towards the close of the year the Council decided to take steps to have Ophthalmia Neonatorum compulsorily notifiable under the Infectious Disease Notification Act 1889, but as the Local Government Board has recently issued an order under Section 130 of the Public Health Act 1875, making the provision for the notification of the disease throughout the country, there was no necessity for the Council proceeding further with regard to their resolution.

The closet accommodation in the district is mainly on the conservancy system, and no doubt is a very important factor in the causation of the high Infantile Mortality, but on the 3rd March, 1914, the Council decided to put into force Section 39 of the Public Health Acts Amendment Act 1907 with regard to new houses.

Insanitary houses which are detrimental to inmates of all ages have received considerable attention from the Council during the past year.

Overcrowding, which is injurious to the health of both infant and adult, is common in the district, and at the last census 14,467 or 21.9 per cent. of the population was found living in houses having more than 2 persons per room. This matter is more fully set out in another part of the report.

The lack of knowledge of infant management on the part of young mothers no doubt influences the infant death-rate, but owing to the Health Visitors Service, this it is hoped, will be less felt in the future.

**ILLEGITIMACY.**—During the year 71 illegitimate births were registered belonging to the district, and during the same period 18 illegitimate children died; this would be equivalent to an Infant Mortality nearly double of what occurred among children born in wedlock. Although these figures have to be considered with caution, still there is no doubt that illegitimacy does influence the Infant Mortality.

Districts with a high Infantile Mortality also have a higher death-rate up to five years of age, and in such districts the general death-rate at other ages is higher than in districts with a low Infant Mortality.

The inference is that many conditions which operate in the causation of a high Infant Mortality are detrimental to the health of the general population.

### ***H.—Vital Statistics of the District.***

The population of the year, estimated on the increase during the decade 1901-1911, was calculated to be 59,997.

The Vital Statistics of the whole district during 1913 and previous years is given on page 91.

### **BIRTHS.**

During the year there were 1811 births (913 males, 898 females) compared with 1911 for the preceding year, the former being equivalent to 30·18 per 1000 of the population and the latter to 32·25.

The table on page 100 shows that the birth-rate per 1000 of the total population has gradually diminished from 37 during 1901 to 30·18 for 1913. It is to be hoped that the commission, which at present is enquiring into the causes that influence the birth-rate, may elicit useful information.

The birth-rate for the Auckland Rural District is relatively high when compared with that for England and

**TABLE I**  
**Vital Statistics of Whole District during 1913 and previous Years.**

Year	Population estimated to Middle of each Year	Births			Total Deaths registered in the District		Transferable Deaths		Nett Deaths belonging to the District			
		Un-corrected Number	Nett		Number	Rate	of Non-residents registered in the district	of residents not registered in the district	Under 1 Year of age		At all Ages	
			Number	Rate					Number	Rate per 1000 Net Births	Number	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	56392	2151		38.14	984	17.45	8	30	317	147	1006	17.83
1909	57102	2049		35.88	931	14.55	6	39	263	128	864	15.13
1910	57820	1892		32.72	819	14.17	9	43	253	133	853	14.73
1911	58520	1887	1893	32.35	923	15.77	25	49	297	157	947	16.17
1912	59254	1903	1911	32.25	751	12.84	21	46	204	106	776	13.09
1913	59997	1807	1811	30.18	887	14.78	11	53	254	140	929	15.48

Area of District in acres (land and inland water), 57,334.

Total Population at all ages, 58,338.

Number of Inhabited Houses, 11,977.

Average Number of Persons per House, 4.86.

At Census, 1911.



Wales, the former being 30.18 and the latter 23.9 per 1000 of the population, that for the administrative County of Durham being 30.6, which is slightly higher than that of the district.

The natural increase of the population is the difference between the number of births and deaths for the same period, and as the decline in the death-rate does not keep pace with that of the birth-rate, there is a gradual diminished ratio added to the population. This is demonstrated by the following table for the period 1891-1913. The year 1912, which shows the comparatively high natural increase of 19.16, had an exceptionally low death-rate, mainly due to the diminished Infantile Mortality for that year.

During the decade 1901-1911 the natural increase of the population (the excess of births over deaths) was 10,184, but the census enumeration only showed an increase of 6,833, therefore during the decade emigration exceeded immigration by 3,351. In other words, supposing that during the ten years 1901-1911 no outsiders had come to reside in the Auckland Rural District, 3,351 of the population would have left the district.



**Table showing the Average Rate of Births, Deaths, and Natural Increase per 1,000 of the Population for the two intercensal periods 1891-1910 and for each of the years 1911-1913.**

1891-1900 Average Rate of			1901-1910 Average Rate of			1911 Average Rate of			1912 Average Rate of			1913 Average Rate of		
Births	Deaths	Natural Increase	Births	Deaths	Natural Increase	Births	Deaths	Natural Increase	Births	Deaths	Natural Increase	Births	Deaths	Natural Increase
37.03	17.99	19.04	35.85	17.24	18.61	32.34	16.18	16.16	32.25	13.09	19.16	30.18	15.48	14.70

## DEATHS.

Table III of the Local Government Board on page 95 gives a detailed classification of the causes of and the ages at death during 1913. The table is classified according to the "Short List" of the Registrar General, with the exception of No. 19 (Diarrhoea and Enteritis) which includes deaths at all ages, instead of only under two years of age as in the "Short List" of the Registrar General.

Excluding 11 deaths of non-residents which occurred in the district, and including 53 deaths of residents, which occurred without the district, during 1913 there were 929 deaths allocated to the district. This is equivalent to an annual death-rate of 15.48 per 1000 of the population, but as the death-rate is influenced by the age and sex incidence of the population, the Registrar General furnishes a standardizing factor (1.0112 for the Auckland Rural District) which when multiplied by the death-rate (crude) of the district, gives the standardized death rate, namely, that which would have occurred in the district had the population been the same as regards sex and age as that of England and Wales at the census 1901. The standardized death-rate thus obtained for the year 1913 was 15.6 per 1000 of the population.

In 66 deaths there was no medical certificate granted as to the cause of death, 30 of these were due to violence, in connection with 29 of which a coroner's inquest was held. With the remaining 36 only 8 inquests were held.

In England and Wales 8.4 per cent. of the total deaths were either inquest cases or deaths from uncertified causes, and in the Auckland Rural District 3.98.

In England and Wales 7.2 per cent. were inquest cases, and in the Auckland Rural District 3.98.

In England and Wales 1.2 per cent. were from uncertified causes, and in the Auckland Rural District 3.12, or nearly three times the rate of England and Wales.

**TABLE III**  
**Causes of, and Ages at Death during the Year 1913**

CAUSES OF DEATH.			Nett deaths at the subjoined ages of 'Residents' whether occurring within or without the district								Total Deaths whether of 'Resi- dents' or 'Non-Resi- dents' in Insti- tutions in the District
			All Ages.	Under 1 Year.	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards
All causes	{ Certified	... 901	241	75	37	51	56	81	146	214	18
	{ Uncertified	... 28	13	1				2	7	5	
1 Enteric Fever ...	...	3				2	1				2
2 Small-pox ...	...										
3 Measles ...	...	14		10	2	2					
4 Scarlet Fever ...	...	9			5	4					6
5 Whooping Cough ..	...	13	9	1	2	1					
6 Diphtheria and Croup ...	...	13		2	1	8	1	1			10
7 Influenza ...	...	24	1	1	1	2	3		6	10	
8 Erysipelas ...	...	4	1						1	2	
9 Phthisis (Pulmonary Tuberculosis) ...	...	46	1	1	4	11	20		8	1	
10 Tuberculous Meningitis ..	...	9	1	1	5	1	1				
11 Other Tuberculous Diseases	...	20	5	5		5	3	2			
12 Cancer, malignant disease	...	41						4	26	11	
13 Rheumatic Fever ...	...	7				2	2	2	1		
14 Meningitis ...	...	9	1	3	1	2	2				
15 Organic Heart Disease ...	...	65				2	3	6	19	35	
16 Bronchitis ...	...	112	45	11	1	1	2	5	16	31	
17 Pneumonia (all forms) ..	...	63	17	16	9	1	4	5	7	4	
18 Other diseases of respira- tory organs ...	...	10		4		3	1	1		1	
19 Diarrhoea and Enteritis ...	...	63	42	12	3				3	3	
20 Appendicitis and Typhlitis	...	2					2				
21 Cirrhosis of Liver ...	...	3							2	1	
21a Alcoholism ..	...	1							1		
22 Nephritis & Bright's Dis.	...	23			1	3	2	4	7	6	
23 Puerperal Fever ...	...										
24 Other accidents and dis- eases of Pregnancy and Parturition	...	14						4	10		
25 Congenital Debility and Malformation, including Premature Birth ...	...	91	91								
26 Violent Deaths, excluding Suicide ...	...	27	2	2	3	1	6	2	6	2	
27 Suicide ...	...	3						1	2		
28 Other defined Diseases ..	...	229	38	9	2	5	9	15	46	105	
29 Diseases ill-defined or un- known ...	...	11						2	4	5	
		929	254	76	37	51	56	83	155	217	18

The higher Death rate during 1913 as compared with 1912 was due to the excessive deaths during the former year from Influenza, Respiratory, Diarrhoeal and Malignant Diseases, which is shown in detail in the following table:—

Year	Notifiable Diseases other than Tuberculosis	Measles	Whooping Cough	Influenza	Tuberculosis		Malignant Diseases	Respiratory Diseases Exclusive of Phthisis	Diarrhoea and Enteritis	Congenital Debility and Malformation including Premature Birth	Violent Deaths	Other Causes	Totals
					Phthisis	Other Tubercular Diseases							
1912	35	33	7	11	45	31	23	133	28	87	34	309	776
1913	29	14	13	24	46	29	11	185	63	91	30	364	929
Increase (+) or Decrease (-) of 1913 compared with 1912	-6	-19	+6	+13	+1	-2	+18	+52	+35	+4	-4	+55	+153

The following table shows the excessive deaths during 1913 compared with that for 1912 to have occurred chiefly among those living under 1 year and over 45 years of age.

Table showing number of deaths during 1912 and 1913 classified according to age periods.

Year	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards	Totals
1912	204	60	53	46	40	93	97	183	776
1913	254	76	37	51	56	83	155	217	929
Increase (+) or Decrease (-) of 1913 compared with 1912	+50	+16	-16	+5	+16	-10	+58	+34	+153

With the exception of the months of January, June and July the increased mortality as compared with that of 1912 was manifest throughout the whole year.

The following table gives the number of deaths according to sex and months throughout the year :—

Month		Males	Females	Total
January	...	38	47	85
February	...	45	45	90
March	...	51	42	96
April	...	46	34	80
May	...	36	46	82
June	...	24	36	60
July	...	35	31	66
August	...	26	27	53
September	...	24	49	73
October	...	46	36	82
November	...	36	30	66
December	...	44	52	96
Totals	...	454	475	929

Of the 217 deaths of persons over 65 years of age.

153 were over 70 years of age

86    „    „    75    „    „

39    „    „    80    „    „

11    „    „    85    „    „

and    2    „    „    90    „    „

The chart facing page 98 shows diagrammatically the number of deaths month by month from Respiratory Diseases, Diarrhoea (including Enteritis) and Phthisis.



Table showing Birth-rate, Death-rate, and Analysis of Mortality during the year 1913 in this district compared with the Registrar-General's summary:—

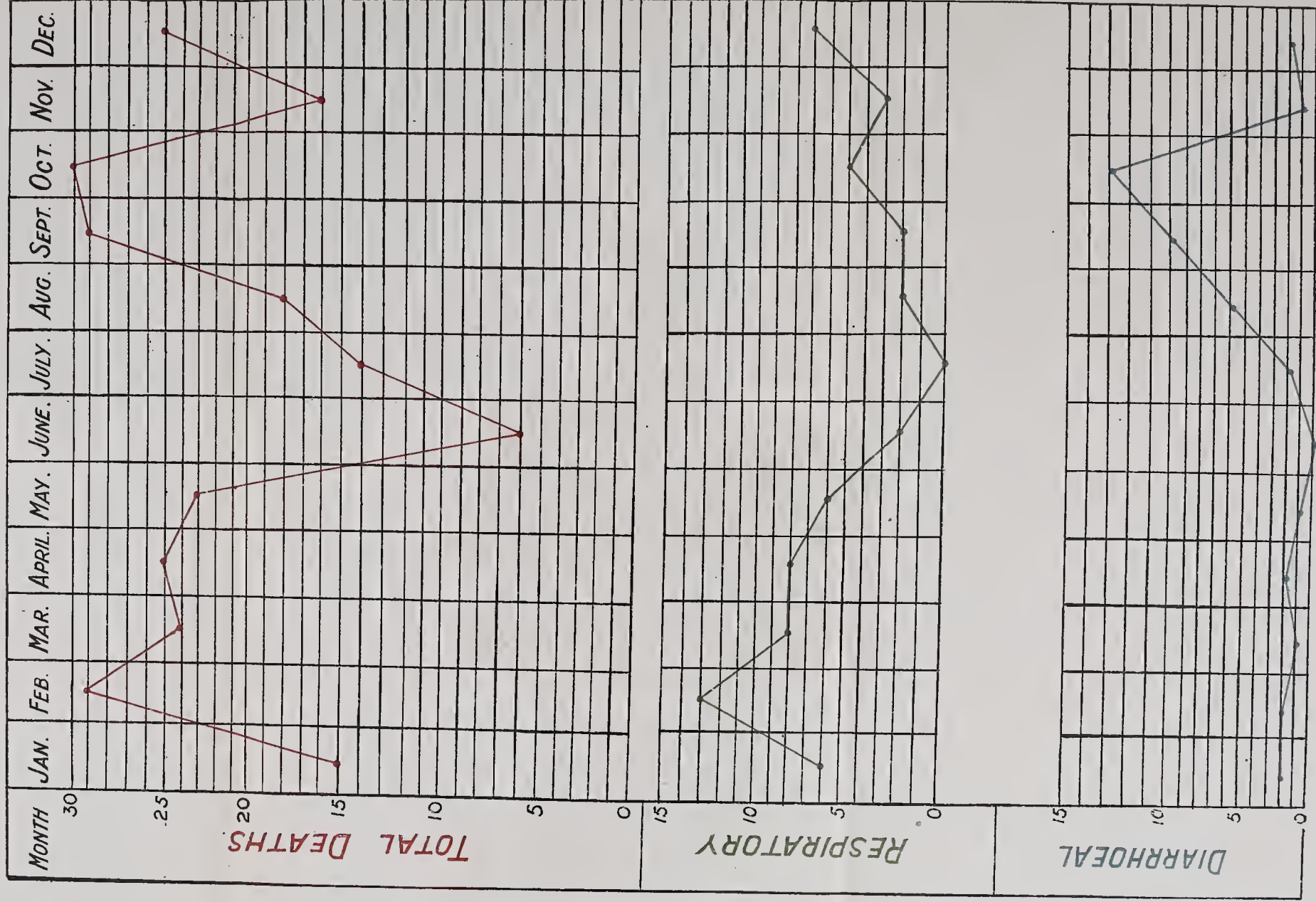
	Annual Death Rate per 1000 living										Annual Death-rate per 1000 Births	
	Birth-Rate	Death-Rate		Enteric Fever	Small-Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Diarrhoea and Enteritis under 2 years	Total under one year	
		Crude	Standardized*									
England and Wales	23·9	13·7	13·4	0·04	0·00	0·28	0·06	0·14	0·12	23·41	109	
96 Great Towns, including London	25·1	14·3	14·7	0·04	0·00	0·34	0·07	0·17	0·13	29·33	117	
145 Smaller Towns	23·9	12·8	13·0	0·05	0·00	0·30	0·05	0·13	0·11	24·73	112	
London	24·5	14·2	14·2	0·02	0·00	0·34	0·04	0·12	0·11	27·5	105	
England and Wales, less the 241 Towns	22·3	13·1	12·1	0·04	0·00	0·20	0·05	0·17	0·09	14·39	96	
Administrative County of Durham	30·6	15·1	15·4	0·06	0·00	0·41	0·15	0·18	0·19	28·0	137	
Rural District of Auckland	30·18	15·48	15·6	0·05	0·00	0·23	0·15	0·21	0·21	29·8	140	

\* The Standardized Death rates represent the crude Death-rates multiplied by the respective standardising factors in order to make correction for differences of sex and age constitution of the several populations in 1911, as compared with that of England and Wales in 1901.



# CHART OF INFANTILE DEATHS

SHOWING DEATHS FROM RESPIRATORY DISEASES  
DIARRHOEAL DISEASES AND TOTAL DEATHS, 1913





The table on page 98 compares the chief Vital Statistics of England and Wales, large towns, smaller towns, London, Rural England and Wales, administrative County of Durham, with that of the district.

The table on page 100 shows the yearly estimated population, birth-rates per 1000 of the population, the infantile deaths per 1000 births, and death-rates from the more important diseases for the period 1901-1913.

The average death-rate in the district for the period 1891-1900 was 17·99 per 1000 of the population

„	1901-1910	„	17·24	„	„
the year	1911	was	16·18	per	1000 of the population
„	1912	„	13·09	„	„
„	1913	„	15·48	„	„

Thus the death rate of 1913, although high compared with the unprecedented low death-rate of 1912, is low compared with that of former years.

### ***Zymotic Death Rate.***

Zymotic Death-rate is the number of deaths per 1000 of the population from the seven Zymotic Diseases: Small-pox, Scarlet Fever, Diphtheria, and Membranous Croup, Whooping Cough, Fever (Typhus, Enteric or Continued), and Diarrhœa.

During the year 115 deaths were caused by these diseases as against 103 for the preceding year, the former being equivalent to 1·91 per 1000 of the population, and the latter to 1·73. The table on page 100 shows the yearly death-rate from each of the seven diseases for the period 1901 to 1913.

The County Zymotic Death-rate for 1913 was 1·85.

TABLE SHOWING BIRTH-RATE AND DEATH-RATE (from the more important Diseases) DURING EACH  
OF THE YEARS, 1901-1913.

Year	Estimated Population	Birth-rate per 1000 of the Population	Deaths under one year per 1000 Births	DEATH-RATE PER 1000 OF THE POPULATION										
				Total all Causes	Diarrhea and Enteritis	Measles	Whooping Cough	Diphtheria	Fevers		Tuberculosis		Respiratory Diseases (exclusive of Phthisis)	Malignant Diseases
									Enteric	Scarlet	Pulmonary	Others		
1901	51,666	37.00	182	19.72	2.36	0.27	0.29	0.29	0.60	0.30	0.83	0.73	2.65	0.36
1902	52,314	35.36	141	15.65	0.66	0.21	0.17	0.43	0.21	0.11	0.97	0.30	2.65	0.55
1903	52,969	37.38	160	18.18	1.60	0.34	0.20	0.32	0.24	0.13	0.90	0.71	2.88	0.56
1904	53,636	37.17	181	18.64	1.80	0.52	0.31	0.13	0.22	0.22	0.76	0.65	3.09	0.54
1905	54,306	33.49	173	17.58	1.41	0.46	0.38	0.23	0.35	0.03	0.79	0.55	3.92	0.60
1906	54,986	35.13	173	17.93	2.25	0.07	0.36	0.14	0.30	0.05	0.61	0.51	2.89	0.67
1907	55,675	36.42	123	17.29	0.66	0.69	0.30	0.09	0.17	0.10	0.91	0.59	2.83	0.61
1908	56,373	38.15	147	17.84	1.50	0.24	0.31	0.19	0.37	0.05	0.65	0.51	3.08	0.51
1909	57,080	35.89	128	15.13	0.68	0.14	0.22	0.19	0.17	0.14	0.66	0.59	2.33	0.52
1910	57,795	32.73	133	14.74	0.69	0.19	0.15	0.08	0.08	0.03	0.58	0.62	2.45	0.74
1901 to 1910	Aver- ages	35.85	154	17.21	1.35	0.34	0.27	0.21	0.27	0.11	0.76	0.58	2.87	0.57
1911	58,520	32.34	157	16.18	1.87	0.27	0.47	0.15	0.17	0.08	0.66	0.58	2.69	0.54
1912	59,254	32.25	196	13.09	0.47	0.55	0.12	0.23	0.05	0.30	0.75	0.52	2.24	0.38
1913	59,997	30.18	140	15.48	1.08	0.23	0.21	0.21	0.05	0.15	0.76	0.48	3.08	0.68